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ABSTRACT

The responsiveness of the University of Massachusetts at Amherst to its adult undergraduates is measured as part of an examination of the American higher education system's response to this type of student. One purpose of the study is to adapt to this university the Commission on Higher Education and the Adult Learner's "Postsecondary Education Institutions and the Adult Learner: A Self-Study Assessment and Planning Guide," which reports 200 practices effective in the education of adults. Instruments incorporating modifications from the literature and suggestions of earlier "Guide" users were sent to all department and division heads, samples of faculty and academic advisors, and heads of the Division of Continuing Education (DCE) and University Without Walls (UWW). Support-service heads were interviewed via Guide-based protocols. Measures of "climate" for potential adoption were calculated. Measures of adult-student satisfaction with services and environment were sought via the Student Opinion Survey, sent to 181 adult undergraduates in adult-degree programs and traditional majors. The response rate overall was in excess of 80%. Many practices were in use in DCE and UWW. Elsewhere, nominal acceptance was moderately widespread; usage lagged far behind. Advisors were identified as the most responsive personnel group, Education and Health Sciences the most responsive academic units. Results indicate that the university is somewhat responsive now but potentially very responsive, and an attitude change is needed. Recommendations include having the university build on demonstrated and potential strengths, establishing an Office of Adult Learning Services as a clearinghouse for information on available options to adult students, investigating the possibility of expanding the number and nature of academic-department courses offered after 4:00 P.M., tracing the pattern of independent study credit to see how extensively part-time students are using it, and scheduling a conference on the general topic of this dissertation. Appended are: design of instruments; cover letters; completion-rate characteristics; supplementary tables; content analysis procedures; and hindsights. Contains approximately 130 references and 44 tables. (Author/SM)

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RESPONSIVENESS TO ADULT UNDERGRADUATES IN A TRADITIONAL LAND-GRANT UNIVERSITY: AN INSTITUTION-WIDE SELF-ASSESSMENT

A Dissertation Presented

by

Annette E. Greenland

Submitted to the Graduate School of the
University of Massachusetts in partial fulfillment
of the requirements for the degree of

DOCTOR OF EDUCATION

May 1988

School of Education

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The Latin root of the word "dissertation" is *serere*, meaning "to connect." For me the process of producing a dissertation has been one of searching for connections, of attempting to build perspectives related to the study and practice of adult and higher education.

Many people have enriched and supported my doctoral work. My guidance committee--Drs. Patricia Crosson, Edward Harris, Fern Johnson, and Robert DeLauretis--have shown me how well collegial processes work on a firm base of respect and amiability. There is evidence of their varied areas of expertise throughout my dissertation and in my outlook.

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ABSTRACT

RESPONSIVENESS TO ADULT UNDERGRADUATES
IN A TRADITIONAL LAND-GRANT UNIVERSITY:
AN INSTITUTION-WIDE SELF-ASSESSMENT

MAY 1988

ANNETTE E. GREENLAND, B.S., UNIVERSITY OF WASHINGTON

M.Ed., UNIVERSITY OF ARKANSAS

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Directed by: Professor Patricia H. Crosson

Nationally, increasing numbers of adults seek participation in higher education, but many institutions have not yet examined missions and practices regarding that population. The study was designed to measure the responsiveness to adult undergraduates of the University of Massachusetts at Amherst, where 7% of undergraduates are older than 25. Content and process were adapted from _Postsecondary Education Institutions and the Adult Learner: A Self-Study Assessment and Planning Guide_ (Commission on Higher Education and the Adult Learner), which contains more than 200 practices effective with adults. Instruments incorporating modifications from the literature and suggestions of earlier _Guide_ users were sent to all department and division heads, samples of faculty and academic advisors, and heads of the Division of Continuing Education and University Without Walls. Support-service heads were interviewed via _Guide_-based protocols. A dual-response format sought to measure support ("proponence") and usage for each practice. Data were subjected to analyses of variance and _a posteriori_ constrasts across academic units, gender groups, and other aggregating criteria. Measures of "climate" for potential adoption were calculated. Written interpretations of mission were content-analyzed. Measures of adult-student satisfaction with services and environment were sought via the *Student Opinion Survey* (American College Testing Program), sent to 181 adult undergraduates in adult-degree programs and traditional majors.

Response rate overall was over 80%. Many practices were in use in DCE and UWW. Elsewhere, proponence was moderately widespread; usage lagged far behind. Advisors were identified as the most responsive personnel group, Education and Health Sciences the most responsive academic units. Students were more satisfied than a national norm group with advisor availability and program-design flexibility, less satisfied with course availability at desired times and with faculty and staff attitudes. UWW students were generally more satisfied than other majors. Conclusions: The university is somewhat responsive now, but potentially very responsive, needing primarily an attitude change. Recommendations included recognition and professional development for an emerging advisors council, creation of an office of adult learning services, and attention to after-hours course offerings. The *Guide* adaptation was critiqued and suggestions for further research offered.

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CHAPTER I

INTRODUCTION

Statement of the Problem

Adults in Higher Education

The clientele of higher education institutions has changed in the United States over its history, particularly in the past two decades. By 1980 some commentators were claiming that nontraditional students, including part-time students, adults, and women, were becoming the new traditional students. Between 1972 and 1982 the rate of growth of the part-time student population was triple that of the full-timers; the over-25 cohort had grown by 70%, compared to the under-25 growth rate of 23% (Shannon, 1986). Women constituted more than half of college enrollments in 1980, earning the majority of bachelor's and master's degrees.

Figures published in 1986 by the National Center for Education Statistics showed that adults, predominantly part-timers, accounted for more than 40% of all enrollments in higher education, and that more than five million adults were participating in degree-credit programs (Documenting and Analyzing the Status of Adult Learning. . . , 1986). The total is now six million, according to a prepublication report of a 1986-87 national study; of that number 75% are between the ages of 25 and 40, 60% are female, 70% work full time, 60% are degree students (divided evenly between undergraduate and graduate students), 50% take four or more courses per year, and 20% are attending on a full-time basis (Aslanian and Brickell, How Americans in Transition Study for College Credit, [1988]).

Some forecasters predict a distinctively "adult" cast for postsecondary education in the next few decades, saying that by 1992 the proportion of persons over 25 may equal that of persons under 25. In a paper written in preparation for the present study, Greenland (1986a) traced the adult-student "presence" in American higher education across two centuries and identified current issues and trends, concluding that

> developments in workplace and lifestyle indicate that more adults will seek the services of colleges and universities as technological advances make jobs obsolete, as increased affluence and leisure time make attendance a more likely possibility, and as a generally more schooled (and more numerous) populace accepts the idea of recurring education as a natural part of life (pp. 98-99).

Adult enrollment figures vary considerably by type of college or university. Some residential liberal arts colleges have purposefully retained their traditional-age-student mission and clientele, many community colleges attract large numbers both of adults and recent high-school graduates, and some urban universities have transformed programs in order to recruit a mostly after-hours commuter population.

Some institutions have initiated their own self-appraisals to determine both the accuracy of their enrollment reports and the "fit" of their mission to their prospective clientele. Administrators and other professionals at many more colleges and universities have discussed institutional self-evaluations at least to the point of seeking study materials and the aid of relevant workshops or consultants.

Expanding Knowledge Base

Concurrently with the increased participation of adults in higher education programs, a sizable body of literature has evolved concerning the nature and effectiveness of a variety of institutional responses to adult students. Rooted in and stimulated by the great diversity among adult learners in age, life experience, prior schooling, goals, commitment levels, and other factors, the literature about effective practices in serving adult learners has increased as theorists and practitioners have replicated and refined studies and found areas of agreement, and as more institutions committed to serving adult students have willingly and critically looked inward, in order to link desirable outcomes to identifiable institutional processes.

In a second paper written in preparation for the present study, Greenland (1986b) examined selected development theories, drew some implications for practice, and sampled applications in higher-education settings. Some of the effective-practice literature is based on theories of individual ego, intellectual, and moral development. Another developmental perspective, that focusing on institutional adaptation to adult students, undergirds other theory-to-practice approaches; Ackell (1986) categorizes universities by the developmental stages they enter or go through--"laissez-faire," "separatist," and "equity"--as adult learners become more important constituencies. The first allows adults to "do the best they can within a system that works neither for them nor against them"; separatist institutions have "a clearly segregated and identified adult or evening unit which has "demonstrably lower priority and status" than its traditional counterpart; and an equity institution gives adults "the same quality and quantity of service as it gives younger students" (pp. 2-4).

Age of Accountability

Pressures for increased accountability have made "assessment," in varying definitions, a "key word for higher education in the 1980s" (Spangehl, 1987). While use of the term in the present study has a voluntary, internal, process-oriented, data-gathering flavor rather than the externally pressing, outcomes-focused, evaluative connotation to which the shifting "symbolism of assessment" has recently moved (Ewell, 1987), the underlying impetus for improvement is a recognizable one.

All of the forces mentioned above--the increasing numbers of enrolled and prospective adult students, the growing body of literature about adult learners and effective ways to respond to them, and the general climate for organizational self-examination--together figured in the funding, creation and publication in 1984 of materials expressly designed for assessing the effectiveness and/or readiness of post-secondary institutions to serve adult learners. The assessment instrument, *Postsecondary Education Institutions and the Adult Learner: A Self-Study Assessment and Planning Guide* (1984) and its supplements (Warren, 1986a, 1986b) form the organizing framework and most of the theoretical base for the present study.

Responsiveness to Adult Students

The Commission on Higher Education and the Adult Learner, publisher of the *Guide* in cooperation with other agencies and institutions, is concerned that much in traditional higher-education patterns and practices is inappropriate for adult students. A Commission publication cites as examples "excessive standardization, insufficient individualization, needless repetition, and inadequate recognition of prior learning." The problem extends beyond the institutional level; states´ "funding formulas are too frequently obsolete, ignoring part-time students and those in continuing education units" (Adult Learners, Key to the Nation´s Future, 1984, p. 7).

Some resistance to serving adult students can be traced to the perception (often grounded in reality) that "adults are more difficult to work with than traditionally aged students." Because they bring anxieties, skill deficiencies, and unclear expectations to the campus setting along with their enriching experience, they "can be scared off by an unresponsive system" ("Adult Learners: An Update," 1988, p. 9). However, given the increasing numbers of them who are seeking higher education and of those predicted to do so in the future, higher education institutions must examine their responsiveness to the population.

Local Setting

The University of Massachusetts at Amherst was selected for examination within the larger context of American higher education. The oldest and largest of the public universities in Massachusetts, it was founded in 1863 as a a rural agricultural college under the Morrill [Land-Grant] Act, achieving "university" status in 1947. At the beginning of the 1985-86 academic year, more than 120 years after its founding, the Amherst campus was offering nearly 5,000 courses to more than

26,000 undergraduate and graduate students, 83% of them enrolled on a full-time basis (1985/86 Factbook, [1987]).

Only about six percent of matriculated undergraduate students are older than 25, suggesting that service to adult students is not a high institutional priority, and fostering speculation that the university may fit in Ackell´s laissez-faire or separatist stages rather than in the equity stage of adaptation to adult students. Its membership may be among those "senior" colleges and universities who, according to the Commission on Higher Education and the Adult Learner,

> do not envision themselves as providers of educational services to adults. They place high priority on traditional admissions, research, teaching to conventional clienteles, and public service in the form of agricultural extension, technology transfer, consultation, cultural events, etc. . . . (Adult Learners, Key to the Nation´s Future, 1984, p. 7).

A traditional image and culture, however, do not exclude large, complex institutions from the obligation to examine how well they respond to adult students.

Purposes and Significance of Study

The primary purpose of the study is to measure how responsive the University of Massachusetts at Amherst is to adult undergraduates, by determining which practices known to facilitate the learning and goal achievement of many older students are in place, and by assessing the extent of support for current use and potential adoption of those practices. A secondary purpose of the study is to adapt Postsecondary Education Institutions and the Adult Learner: A Self-Study Assessment and Planning Guide to the University of Massachusetts at Amherst.

The study is primarily significant to the local setting, in that it systematically gathers in one document (and subsequent summary reports) a usable amount of information about services and other responses to adult learners on this campus. The findings could (1) serve to aid decision-making at several levels in the institution, from that of an individual advisor or faculty member contemplating new approaches to committees and councils where broad-reaching policy is made; (2) provide a foundation for a more conventional, administration-mandated self-study involving faculty and staff work groups from a cross-section of units and specialties; and (3) establish a reference point for a replicative study to be undertaken, say, five years hence.

The study´s secondary purpose suggests significance outside the local setting. The Guide, described more fully in Chapter III, is the first widely available instrument of its kind, and has not, as will be shown in Chapter II, heretofore been implemented in the manner and situation chosen for the present study. Thus a theoretically supported adaptation describing instrument development and planning/implementation processes should be usable by other institutions.

Limitations

Some factors in the setting, approach, and guiding instrument suggest possible limitations of study findings.

Several adaptations of the general process outlined by the Guide, while based on characteristics of the local setting and experience of earlier Guide users, should be recognized for their potentially restrictive aspects. In place of a mandate from the chancellor or provost to participate in a self-study process, persons surveyed were encouraged to participate via an endorsement letter from the deputy provost. The actual data-gathering was not done by work teams composed of faculty and administrators who are tied into the formal and informal networks of the institution, and whose "credibility, interest, time, and expertise" (Warren, 1986b, p. 13) would enhance the likelihood of useful outcomes, but by a graduate-student researcher. To counteract this limitation, the dissertation guidance committee was viewed as a support team having the requisite credibility, interest, expertise (in higher education as a field of study and practice, adult higher education, university administration, and institutional research), and familiarity with the governance and general operation of the institution.

To the extent that the Guide is not a conventional research instrument for which technical data on reliability and validity have been provided, the outcomes may be diluted by disagreement over the implied norms of the instrument. Further, the knowledge base concerning users of the Guide, while it contains criticism as well as praise, is limited to those reports provided to the Commission on Higher Education and the Adult Learner by representatives of user institutions.

The survey findings may not be generalizable beyond the University of Massachusetts at Amherst. Broad generalization, however, is not a major issue in a study whose purposes are to gather information useful to a particular institution and to adapt an instrument to that institution. The adapted version of the Guide is potentially generalizable to other institutions with similar characteristics and settings and usable by other researchers and/or coordinators of institutional studies.

Exclusions

All exclusions were intended to limit the study to matriculated adult undergraduates pursuing work on the Amherst campus and to those faculty and administrators with regular, ongoing responsibilities and concerns with these students. Specifically, these groups were excluded: (1) non-matriculated students in the Division of Continuing Education's credit-bearing programs; they by definition are not officially working towards degrees, and thus are rarely required to seek advisors or offer any credentials for enrollment other than a high-school diploma; (2) participants in non-credit courses, workshops, training activities and seminars offered by the Division of Continuing Education, the Institute for Governmental Services (and other institutes offering such opportunities), the Cooperative Extension Service, and the Staff Training and Development Unit; (3) graduate students; (4) adjunct faculty; (5) faculty who teach credit courses on this campus but whose primary appointment is at one of the other institutions in the Five College Consortium; and (6) academic administrators above the department chair/head and division chair/director levels. (Persons in category 6 are not subjects in the study, but are considered consumers of study findings.)

As will be noted in the *Adaptation of the Guide* section of Chapter III, performance rating exercises were excluded from survey instruments sent to academic unit heads, faculty, and academic advisors. The justification for this exclusion lies in the inappropriateness of judging the performance of units serving few adults by the implied norms of those serving many.

Definitions of Terms

Adult and traditional-age students. For the purposes of this study an adult student is a person 25 years old or older formally enrolled in a program of the University of Massachusetts at Amherst. This is a narrowing of the Guide´s term, "adult learner," which also includes that larger population of persons who acquire knowledge and skills on their own, outside the auspices of an educational institution. Traditional-age students are those undergraduates 18-22 years of age who attend the university, primarily on a full-time basis, in programs leading to degrees or certificates.

Selecting age 25 to divide the "adult student" population from the rest of the student population was a somewhat arbitrary decision. Because adult status is as much determined by social roles and responsibilities as by age (Kett, 1977), this dividing line would not be defensible in some other kinds of studies; the lower limits in one survey of "adult" degree programs (Eldred and Marienau, 1979) ranged from "under 20" to over 25. Three factors influenced the choice of 25 for the present study: (1) The "gap" between the traditional-student age range of 18-22 and the adult student´s age (here, 25+) is intentional. Work and other experiences outside the institution during this period usually influence adults´ returns to higher education and determine their educational and support-service needs and their budgeting of time, energy, and money. The interim between 22 and 25 is, for definitional purposes, left unnamed and unexamined, partly as a buffer zone between the two defined groups. (2) Enrollment statistics are retrievable from the institutional database by age groupings, not by social roles and responsibilities. (3) Survey participants, when considering responses to questions, are more likely to distinguish "adult students" from "traditional-age students" by appearance (that is, age-linked characteristics) than by particular knowledge of students' social roles and responsibilities.

Assessment, used far less often here than "self-study," has a variety of meanings to persons in education, and, according to Hartle (1985), "is rapidly becoming an overused word that means different things to different people in different settings" (p. 3). Where "assessment" is used in following pages instead of "self-study," it "refers to the process of gathering data and assembling the evidence into an interpretable form" (Hartle, 1985, p. 4).

Institutional self-study. This term signifies an examination of an institution's components which is initiated and carried out by its members or sponsors. Such a definition emulates that used in the *Thesaurus of ERIC Descriptors* (Houston, 1986) to distinguish internally-guided from externally-mandated reviews (ERIC uses "institutional evaluation" to connote the latter). Differentiating self-study from other kinds of appraisal of the entire institution has also been aided by Miller (1979); in his group of "five approaches to institutional evaluation that are currently being used," the present design fits best the fourth category, "self-studies for other purposes." The others are educational auditing, assessment by external consultants, self-studies for accreditation, and state and federal reviews (pp. 270-283).

Institutional response to adult students connotes a blend of (1) the usage or availability, either officially or customarily, of certain practices in organizational units for dealing with students whose primary distinguishing characteristics seem to be age and apparent adult status, and (2) attitudes of receptivity to, or "proponence" for, those practices.

Proponence is a word coined expressly for this study. Its evolution is described in the Measures section of Chapter III. Proponence signifies, at the conceptual level, the abstract quality one exhibits when one is a proponent of (i. e., is in favor of, or receptive to) an idea or procedure. Operationally, the extent of proponence for a practice is expressed as the number or proportion of respondents who answered "Yes" to the survey-instrument question "Are you a proponent of this practice?" It is often used in tandem with usage.

School, college, and faculty designation at the University of Massachusetts at Amherst is the "fundamental organizational level at which enrollments are analyzed and reported" (Enrollment Report and Analysis, 1986, p. 1). Ten designations were used in the present study and are listed here with their usual abbreviations: three faculties of the College of Arts and Sciences, Humanities and Fine Arts (HFA), Natural Sciences and Mathematics (NSM), and Social and Behavioral Sciences (SBS), and the advising designation for undeclared majors, College of Arts and Sciences Information and Advising Center (CASIAC, CAS); School of Education (EDU); College of Engineering (ENG); College of Food and Natural Resources (FNR); School of Health Sciences (HSC); School of Management (MGT); and School of Physical Education (PHE).

Usage was selected as the term signifying the entity expressed by "Yes" responses to the survey-instrument questions "Is this your practice?" and "Is this your unit's practice?" Designating "usage" in this manner avoids labelling with the word "practice" both the individual items of activity listed in an instrument and the collective measure of their prevalence in the routines of persons or units.

A user institution is a college or university which has implemented an institutional self-study based on the Guide. The user institutions cited in this study are those which have sent study teams to workshops sponsored by the Commission on Higher Education and the Adult Learner and which have either submitted reports to the Commission or, when their names were made available by the Commission, provided descriptive information. User institutions are named and their study approaches briefly described in Chapter II.

Organization of the Study

Chapter II, Review of Literature, is limited to selected sources in these areas: foundational materials for Postsecondary Education Institutions and the Adult Learner: Self-Study Assessment and Planning Guide; literature supporting institutional self-study as a process; dissertation studies and material indexed in ERIC on institutional self-study; local studies relevant to the adult-student population; and reports from institutions which have used the Guide in self-studies.

Chapter III, Methodology, describes the study design and lists the research questions which guided the design. It also describes the local setting, the Guide and its adaptation, participants in the study, measures, procedures, and data analysis and display.

Chapter IV, Results, presents study findings so that they answer a number of subordinate questions which together constitute the primary research question, How responsive is the University of Massachusetts at

Amherst to adult undergraduates? The chapter concludes with a condensed summary of findings.

Chapter V, Discussion and Recommendations, offers a broad answer to the primary research question by characterizing the most responsive groups and aspects and the most satisfied groups of adult students. Seven recommendations are presented. Theoretical implications are traced and suggestions for future research offered.

Chapter VI, Critique of the Guide and its Adaptations, provides a final look at the process of adapting the Guide to this university, discusses successes and limitations of the adaptation and of the as-published Guide, and offers suggestions for future users.

The bibliography includes references cited and other sources which contributed to the study. Appendices contain examples of cover letters, detailed procedural descriptions, and supplementary tables.

CHAPTER II

REVIEW OF LITERATURE

The literature on adult students in higher education and on institutional self-study is voluminous. This review presents literature in each of six areas directly related to this study. First, materials are examined which serve as the theoretical base for *Postsecondary Education and the Adult Learner: A Self-Study Assessment and Planning Guide*. These materials provide a theoretical and practical foundation for the *Guide* and establish it as a product of a panel of experts. Second, representative sources concerning institutional self-study in higher education are reviewed to establish support for it as a type of evaluation and to summarize characteristics of successful efforts. Third, dissertation studies related to institutional self-study are examined for their connections to the present study. Fourth, relevant non-dissertation materials indexed in the ERIC database are described. Fifth, local studies relating to adult students at the University of Massachusetts at Amherst are reviewed to support the need for an institutional self-study focused on that population. Finally, the review synthesizes reports of teams at other institutions which have used the *Guide*.

For a more generalized review of the literature on adult students and adult development theory, see *Selected Theories of Adult Development; Implications for the Responses of Higher Education Institutions* (Greenland, 1986b). For a review of the literature on institutional adaptations to adult students, see *A History of the Adult-Learner Presence in College and Universities; Current Issues and Developments* (Greenland, 1986a).

Foundational Materials for Postsecondary Education Institutions and the Adult Learner: A Self-Study Assessment and Planning Guide

A growing body of literature attempts to delineate principles of effective institutional practice in serving adult students. It starts with the principle that institutional response to adult students has much to do with the great variability among adult students--in age, life experience, prior schooling, employment status, developmental stage, learning needs and styles, and other factors--and with the reasons adults return to college settings to work toward personal and professional goals. Important concepts are the voluntariness of adult participation in higher education, the part-time nature of much of that participation, the wish of many adults to be actively involved in planning their programs of study, the multiple contexts in which adults move, and the "uses" they attribute to knowledge depending on their life stages.

Weaving these concepts into a sound rationale enabled the developers of the *Guide* to construct a valid instrument for assessing appropriateness of institutional response. According to the principal developer (Arthur W. Chickering, personal communication, June 5, 1987), the key conceptual frameworks for the *Guide* are contained in three publications: *Turning Colleges Toward Adults* (Lindquist and Marienau, 1981); *Higher Education for Adult Mental Health: Model Programs, Professional Development and Institutional Change to Serve Adult Learners* (Lynch, Doyle, and Chickering, 1984); and "Comprehensive Counseling and

Support Programs for Adult Learners: Challenge to Higher Education" (Lynch and Chickering, 1984, pp. 45-73). The two latter works are outgrowths of the Higher Education for Adult Mental Health Project, funded during 1981-1984 by the National Institutes for Mental Health and sponsored by Memphis State University's Center for the Study of Higher Education, directed by Arthur W. Chickering.

The Lindquist and Marineau work was an outcome of an earlier project, Higher Learning for Diverse Adults (HiLDA), sponsored by Memphis State University and the Fund for the Improvement of Postsecondary Education (FIPSE). In Section I, Lindquist identified several effective institutional practices under the headings "logistical adjustments for adults" (p. 2), "responding to adult experience" (p. 5), "educating for adult development" (p. 11), and "learning styles of adults" (p. 15). Practices in the first category which are reflected in the Guide deal with fitting college study around the work and family responsibilities of older students. These include making possible the development of learning contracts negotiated cooperatively by student and faculty mentor; combining traditional courses, independent study, media-delivered courses, and other components into individualized study plans; and reformatting traditional meeting schedules into fewer and longer sessions. Practices from the second category which have Guide equivalents acknowledge that adults "have learned a few things along the way" to being older than 18-22-year olds (p. 6); such practices include evaluating in a rigorous but fair manner, and awarding credit for, non-collegiate, college-level learning; and incorporating adults' experience into classroom activities and/or problem-solving assignments.

In Lindquist´s third category are practices which consider the various kinds and levels of students´ development and promote individualized responses. Among these practices are training advisors to identify development levels and to provide low or high structure accordingly; adapting classroom teaching so that the kind of information-dispensing that does little to stimulate thinking is interspersed with such challenges to higher developmental levels as group problem-solving, critical essays, and independent study projects; and designing curricula so that structure and support can be varied according to students´ development levels, and so that interdisciplinary approaches can be undertaken to stimulate synthesis and evaluation. Similar approaches emerge from Lindquist´s fourth category of practices, which address cognitive styles along with diverse approaches to learning situations and call for faculty to be able to differentiate among students who would benefit by working in a group and those who work best alone, and among students who need high challenge and those who need high structure.

In Section II, Marienau traced the HiLDA project, whose participants were teams from 13 institutions which had had varying amounts of experience with adult students. Designed to demonstrate "how theory concerning adult learning and planned change might be translated into practice within diverse colleges and universities" (pp. 34-35), the project workshops emphasized the collection of "baseline" data on adult students within the institution and the use of such information in "action-oriented research" to "help with the diagnosis of problems, influence policy, or, at a minimum . . . be a consciousness-raising tool" (p. 87).

The project which produced the second and third publications involved teams from 18 institutions in problem-solving learning experiences. The project was

> designed to stimulate participant study of theory, research and applications relating to adult development, preventive mental health and planned institutional change. . . . The Project was oriented toward creating institutional environments, teaching and learning practices, and support services which help students tackle developmental tasks more effectively and deal with problems at early stages . . . (Lynch, Doyle, and Chickering, 1984, p. 2).

Three theoretical and research bases were the foundation for the project's learning activities: (1) adult development theory, including stage theory and learning styles theory and their relationships to changes in the population's age mix and family and work styles; (2) preventive mental health theory, which focuses on maximizing strengths through education; and (3) theories of planned institutional change which bring external models to bear on local needs (pp. 16-17).

At their respective institutions, teams developed model programs in these areas: administrative structures, policies, and procedures (including attention to institutional and program mission statements); curricular changes and instructional programs; student services programs; network and linking programs; adult student support groups; and professional development programs (p. 3). They brought to project network meetings their successes and problems for group processing via theoretical and practical approaches. Additional issues arose beyond those planned for the project and were addressed in group settings, via consultation, and/or in some of the model programs; those reflected later in the Guide included portfolio development for assessment of prior learning and leadership-skills development towards implementing innovations (p. 17).

In the third work, Lynch and Chickering addressed counseling and support programs, characterizing an "ideal" system which responds to such social conditions as the "greying" of America, the emergence of the "information society," the changing roles of women which affect demands for education, and the increasingly diverse constituencies of many higher education institutions (pp. 45-46). While the authors' ideal "three service clusters"--entering services, supporting services, and culminating services--do not have precise structural equivalents in the intentionally flexible format of the Guide, they represent one comprehensive manifestation of a key goal: coordination and networking among support services. Most of the recommended practices in the clusters can be linked directly to effective practices addressed in the Guide's diagnostic questions:

> (1) Entering Services--preadmissions, recruitment, admissions, financial aid, student employment, orientation, educational planning, developmental assessment, assessment of prior learning and registration; (2) Supporting Services--academic support services, career development, life and personal counseling, educational programming, recreational, athletic and cultural activities, health services and wellness programs, student government and organizations, residential life, child care, support groups, and developmental mentoring; (3) Culminating Services--academic program review and graduation assessment,* job search,* resume writing,* interviewing* and placement services, practica, internships and other experiential learning, and developmental transcript review* (Lynch and Chickering, 1984, p. 54).

The authors also call for intelligent use of computer-assisted advising and remedial services and other applications of technology, and for professional development for current staff that prepares them for their new roles in serving adult learners (pp. 67, 69); these topics are addressed in various Guide categories.

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*No Guide questions name these practices specifically.

A major work edited by Chickering and completed just prior to the initiation of the National Institutes for Mental Health grant project can also be cited as a source of influence on his later conceptualization of the Guide. The Modern American College: Responding to the New Realities of Diverse Students and a Changing Society (Chickering and Associates, 1981) is structured upon the concept that "since every college or university is a tight system of interacting parts, broad-based understanding is necessary if significant institutional development is to occur" (p. xxviii). The book's sections, representing the writing of 51 theorists and practitioners in adult development, curriculum, student services, administration, and other specialties, are usable in professional development activities for increasing knowledge of adult learning and development; by specific disciplines and professions in "rethinking curricular content, course sequences, teaching practices, and educational resources"; and by faculty and administrators examining the general appropriateness of learning environments and specific practices within an internally consistent environment of "institutional goals, educational practices, administrative organization and behavior, professional development, and research programs examining institutional effectiveness" (p. xxviii).

Contemporaneously, much of the research and theoretical development in adult learning and adult development was being synthesized and supplemented by Cross (1981), whom Chickering cites as influencing his work. The "barriers to participation" model extended by Cross after the work of Carp, Peterson, and Roelfs (1974) is part not only of the past decade's thinking about adult access to higher education but also of the present study.

Developmental theorists whose work undergirds much of the conceptual framework established by the late 1970s regarding adult higher education have been characterized, and implications of their thinking for institutional response summarized, by Greenland (1986b), who also recognizes the role of many others in expanding understanding of institutional responses to adult students. Among those widely cited in the adult higher education literature whose writing antedates or parallels the HILDA and NIMH projects, in addition to Cross, are Greenberg (1981), who formulated a set of organizing principles for program design (pp. 218-219) and used an adult-student metaphor to illustrate a model for effective institutional management (p. 126); and Weathersby and Tarule (1980), who, recognizing that it is "extremely difficult to break out of old habits of thought" in order to apply new theoretical perspectives (p. 42), called for increased "humanization" of higher education institutions as they respond not only to students´ developmental needs but to those of faculty, administrators, and staff (p. 2).

Finally, the annotated bibliography provided in the *Guide* suggests not only the interconnectedness of foundational and other antecedent material but also the range of authors and topics which could be explored by *Guide*-users engaged in planning institutional change. More than 130 references are listed, 21 as general works and the remainder grouped to correspond exactly with the categories in the self-study section (*Postsecondary Education Institutions and the Adult Learner: A Self-Study Assessment and Planning Guide; Part I, User´s Handbook*, 1984, pp. 14-26).

Institutional Self-Study

On the surface, defending periodic or ongoing self-examination as essential to effective management and planning would seem unnecessary. Institutional self-study has become more widespread over the last three decades, its growth influenced by requirements of external funding and increased demands for accountability and effective management. However, such processes are not universally undertaken and are not always effectively managed or utilized by colleges and universities. Some self-study efforts are implemented only when the spectre of required external review for reaccreditation looms. Possible benefits are numerous, but can be lost among the "burdensome, descriptive, mechanical" aspects of self-study processes (Kells, 1983, p. xii).

Although the relevant literature has expanded somewhat correspondingly to the growth of the process, less than a decade ago Kells and Kirkwood (1979) noted that "Institutional self-study, the first and most important step in the widely accepted institutional accreditation process in American higher education, has never had a thorough empirical study" (p. 25). Much of the available literature on institutional self-study is embedded in considerations of the accreditation process, even though such efforts constitute only one of five kinds of currently used evaluations conducted on an institution-wide level; the five, named by Miller (1979, p. 270) are educational auditing, assessments by external consultants, self-studies for accreditation, self-studies for other purposes, and state and federal reviews.

While the literature search undertaken in preparation for the present study was directed chiefly toward research and comment on "self-studies for other purposes," the accreditation literature became an important source of supports for the self-study process, desired attributes, barriers identification, and instrument selection. Miller (1979) and, more recently, Ewell (1984) cover a broad range of institutional self-assessment processes and purposes; Kells and Kirkwood (1979) and Kells (1983) write more within the context of accreditation, while not limiting their remarks to that sphere.

Supports

More advantages than disadvantages for institutional self-study are cited in the literature. Institutions which undertake systematic self-study are more likely to deter "excessive influence from external forces" and to show that they risk being "at the heart of the human instinct to improve through innovation" (Miller, 1979, p. 267). As academic communities, universities "place unusual value on acquiring information and using it for social and individual improvement," so that systematic assessment procedures "are fast becoming hallmarks of what can be termed the self-regarding institution" (Ewell, 1984, pp. 4-5). When complemented by institutional research, institutional self-study is "directly related to effective institutional management and functioning," particularly the "control" function (Kells and Kirkwood, 1979, p. 27).

Barriers

Although institutional self-study is widely perceived as desirable, many barriers or objections to it exist. Several were identified in the literature as potentially applicable to the present study: (1) the difficulty of clarifying the complex goals of a large institution; (2) the scarcity of methods for gathering and using data; (3) faculty resistance born either of fear of evaluation or conviction that their work isn´t measurable by non-faculty; (4) excessive cost; (5) lack of administrative commitment and capability for using study outcomes (Kells, 1983, pp. 5-6; Ewell, 1984, pp. 72-77); (6) the disproportionately lower motivation of master- and doctoral-level institutions for using self-studies for improvement (Kells and Kirkwood, 1979, p. 41); and (7) perceptions that the problem addressed by the study isn´t an important one.

Form and Characteristics

Of the five forms of self-study identified by Kells and Kirkwood (1979, pp. 34-36), the present study fits in the Form 3 category, an assessment of selected topics (the others are the comprehensive, comprehensive with special emphases, current special study, and regular institutional research forms). Desirable attributes of a self-study listed by Kells (1983, p. 17) include internal motivation for the process (as contrasted to external pressure), committed top leadership, study design appropriate to the institution, goal clarification, representative and useful participation from the academic community, a well-led process, improvement during and as a result of the process, a readable concluding report, and a subsequently improved system of institutional research, self-analysis, and self-improvement. Corresponding weaknesses, some identified in a study of 208 institutions´ self-study processes (Kells, 1983, p. 55), can be derived by stating the opposites of the desirable characteristics.

Instrument Selection

The literature supports the use of well-chosen, well-designed instruments. Advantages of using instruments are their capability for collecting systematic data from large groups and the likelihood that respondents not otherwise engaged in the study may be affected in a positive way. Poor or no results accrue from using hastily designed or untimely instruments or from distributing them in the absence of "sophistication, coordination, and good judgment," according to Kells (1983, p. 77). Kells also provides support for the kind of systematic, literature-based instrument development undertaken in the present study:

> Remember that no one method or taxonomy or ready-made set of questionnaires or data schemes is totally appropriate as is for your college, university, or program. . . . Select the ideas, items, and parts of schemes that will help you conduct the studies. . . . Build the rest as you see fit (p. 76).

Dissertation Research Concerning Institution-Wide Self-Studies

Two search modes aided the identification of dissertations related to institutional self-studies. In both modes the top priority was locating research studies in which the doctoral candidate had both planned and carried out an institution-wide assessment in a university or public four-year college. None meeting all of these criteria was found.

Kells and Kells (1984) compiled an annotated list of 122 dissertations through a search guided by keywords dealing with accreditation, self study, visiting teams, and various derivations of those terms. Of the 15 listed in their topic index under "The Accrediting Process--

Self-Study" (p. 34), 11 are in the decade of interest to the present study. None of the 11 investigators carried out a self-study him- or herself, but abstracts of four of the dissertations, all of doctoral candidates in land-grant institutions, offer conclusions or other information at least peripherally relevant to the purposes and processes of the present study. At the University of Minnesota, Stoodley (1982) developed a self-study and data-collection method for use in the several accreditation processes of a two-year institution, but did not carry out the self-study. Massenberg´s (1979) dissertation at Virginia Polytechnic Institute and State University compared traditional and non-traditional self-study methods used in six Southern institutions, concluding that "the nontraditional self-study appears to get stronger impetus, the opportunity for stronger procedures, and stronger impacts or outcomes" and suggesting the use of such approaches by administrators who "desire the use of an optional method of self-evaluation for additional outcomes. Van Pallandt´s (1981) dissertation at the University of Tennessee analyzed the status of systemwide self-studies of selected multicampus universities, finding such activity to be frequent, highly valued, and separate and distinct from "regular" accrediting activities. At the University of Massachusetts at Amherst, Day (1980) analyzed the impact of non-traditional forms of institutional, accreditation-related self-study upon planning and goal achievement in 37 New England community colleges. He found significant lack of "involvement in and knowledge about alternative forms of institutional self-study" and few well-established or continuous mechanisms for undertaking such efforts.

A computer search of titles in the *Dissertation Abstracts International* database was initiated. The retrieval process was guided by the keywords (in singular, plural, and adjectival forms) "adult students or learners," "adult programs," "institutional self-study, self-evaluation, self-assessment, self-appraisal, self-examination," "institutional study, assessment, appraisal, examination, evaluation," and "self-study, self-evaluation, self-assessment, self-appraisal, self-examination." Twenty-eight titles were retrieved, none suggesting characteristics of a study similar to the present study. As judged by their titles, eight dissertations concerned assessments outside higher education institutions, six focused only on graduate programs or faculty/staff development, four concerned single disciplines or subjects (such as nursing, Spanish), seven were limited to single services or programs within an institution, two examined community college structures, and one modeled adult education growth in small private colleges.

Non-Dissertation Literature

A computer-guided search of the ERIC database for references other than dissertations produced little except of peripheral interest to an institution-wide self-study concerning services to adult students. None of the reports from institutions which had used the *Guide* had at that time been entered into the ERIC system. The search was guided by these descriptors selected from *Thesaurus of ERIC Descriptors* (Houston, 1986): "self-evaluation (groups)," "institutional evaluation," "organizational effectiveness," and the delimiting descriptors "colleges and universities" and "adult students."

Of 27 abstracts retrieved, only two carried at least three of the descriptors and thus suggested factors considered in the design of the present study. Cloutier (1985) used a state-developed instrument to survey students, faculty, administrators, and advisory committee members concerning the adult and continuing education program at a Wisconsin technical institute; she recommends that future investigators avoid one of the flaws of her study, that of constructing a series of questionnaires having no items in common. Hruby´s (1980) narrative recounts a massive ($35,000, 15-month, 4,500-question) reassessment at a Catholic liberal-arts college; inferences drawn from the report are that the effort required every faculty member´s time and involved many students but was cumbersome to manage and interpret.

Local Studies

The timing was right for the present study at this university. A new chancellor of higher education had just called for redress of inequities in continuing education and graduate programs (both primarily "adult" programs) in Massachusetts´ public institutions (Jenifer, 1986) and had reemphasized the "flagship" role of the University of Massachusetts at Amherst among those institutions (Franklyn Jenifer, speech at the University of Massachusetts at Amherst, February, 1987). Publicity in the commercial press a few months prior (Kraft, 1986) had called attention to the shortage of after-hours´ classes and the "aging of the student population" (p. 4).

No institution-wide self-study concerning services to adult undergraduates has been undertaken at the University of Massachusetts at Amherst. The most recent full reaccreditation self study, in 1978, and a fifth-year report which followed in 1984 contained few references to the older student population (Accreditation Self-Study Report, 1978; Fifth-Year Report to Commission on Institutions of Higher Education, 1984).

Seven more narrowly focused studies of potential use to the present study were identified. However, the results of one study are nearly 10 years old, three were incomplete at the time of the literature review, and three are limited to either a very small part of the university's adult population or to one program.

In late 1978 the university's Student Affairs Research and Evaluation Office (SAREO) surveyed more than 200 students 25 and older to determine their concerns. Respondents expressed needs for accurate information about campus and community services, academic advising, late-afternoon and evening classes, career planning assistance, and extended office hours for the offices of admissions, bursar, financial aid, and other services. Suggestions concerned fostering advocacy for older students among administrators and implementing staff workshops about needs and characteristics of the population (Perrault, 1987, [pp. 7-8]).

More recently, SAREO has "not done much to study adult issues," and in its ongoing surveys asks students' ages only if pertinent, according to its former director (William Weitzer, personal communication, June 2, 1987). SAREO mails an annual survey to a sample of students and conducts weekly telephone surveys of from 200 to 400 students on various topics. Because random samples are selected and because adult undergraduates constitute only about six percent of the population, only a relatively small amount of information is obtained from the latter group.

In November, 1986, in response to a request from the faculty and staff of University Without Walls that more evening courses be offered (Edward J. Harris _et al._, personal communication, September 12, 1986), the associate provost for undergraduate education suggested that UWW students be surveyed to determine their needs in evening-course programming (Norman D. Aitken, personal communication, November 18, 1986). Appropriate questions were added to a survey being implemented at the time by a student carrying out an senior honors project (Denny, 1987), described below. However, a low response rate and a lack of specificity in her questions limit the usefulness of the course suggestions she received.

Still in progress at the time of the literature review were Denny's study and another undertaken by an undergraduate. Perrault, an adult student and a full-time employee in the admissions office, contracted with a faculty member for a senior practicum in the Division of Home Economics. The products were to be a resource manual entitled _How Does a Traditional State University Adjust to Needs of the Non-Traditional Student?_ (Perrault, 1987) and a new brochure for prospective adult and other non-traditional students (_University of Massachusetts at Amherst Nontraditional Students_, 1987). Perrault's questionnaire survey of support-service and "adult" program heads for obtaining updated brochure material antedated by a few months the present study's interviews of 11 of the same subjects.

Denny (1987), a University Without Walls student and a market researcher, surveyed all current UWW students two months prior to the present study's data collection period. Her mailed questionnaire was designed to gather data about students' experience within UWW; to determine their level of satisfaction with the UWW degree process, required UWW courses, and resources available through the rest of the university; to elicit the most-liked and least-liked attributes of UWW; and to collect suggestions for evening courses. Although her response rate was low (27%) and her rating scale is different from the one used in the present study, seven questions are similar in the student instruments used in the two studies.

In addition to Denny's recent work, UWW has been formally studied more than have adult-student components elsewhere in the university, through periodic surveys of alumni, in occasional dissertation studies in other institutions, and in Regents' reviews. Stetson (1978), who completed his doctorate at Loyola University of Chicago, surveyed students, staff, and faculty associated with seven UWW-type programs in order to compare perceptions of UWW and characterizations of an "ideal" UWW. Tiberii (1980), a doctoral candidate in the University of Massachusetts School of Education, summarized Stetson's data and conclusions where they were pertinent to the local UWW, but did not construct precise data tables. Stetson's local response rate was low: students, 27%; faculty and staff, 34% (Tiberii, p. 2). A majority of student respondents liked the freedom of planning their own curriculum, felt their choices were greater than in traditional programs and that they had developed academic programs not usually available elsewhere in the university, and viewed the advising process as important in establishing goals (Tiberii, p. 2). Faculty and staff respondents, 85% of whom had been working with UWW for three years or longer, generally favored the structure, choice, and evaluative features of UWW. About 23% felt UWW programs´ academic quality was higher than that of traditional undergraduate programs, 44% saw no differences, and 20% saw UWW as lower (Tiberii, p. 4).

An external evaluation team studied UWW in 1986 as part of the [Massachusetts] Regents´ Degree Program Review Process. The team found that UWW "supports the philosophy of a land-grant university in its proactive outreach and design to serve the needs of older adult citizens" (Blake, Forrest, and Greenberg, 1986, p. [1]). Among the 16 strengths cited are seven relevant to survey items in the present study: individualized degree program model, assessment and advising capability, barriers reduction for adult students, interdisciplinary perspective, developmental orientation to learning, and relationships with other campus units (p. [21]). Among eight listed weaknesses, one is specifically and most closely related to the present study: "inadequate evening and weekend course schedules and other services available via the University" (p. [22]).

Reports from Users of the Guide

Of nearly 160 administrator/faculty teams who attended two-day *Guide*-orientation workshops sponsored by the Commission on Higher Education and the Adult Learner from 1984 to 1986, more than 90 had sent followup reports to the Commission by early 1987. Forty-six had completed their self-studies and another nine or ten were "in progress," according to the Commission´s vice chair (William H. Warren, personal communication, February 26, 1987). Reports which described the initiation, planning, implementation, and outcomes of institutional self-studies were sought as an information pool to aid adaptation of the Guide to the present study. Priorities for selection of user reports began with institutions comparable to the University of Massachusetts at Amherst, but also included other relevant materials, in this order: land-grant institutions, Northeastern peer institutions of the University of Massachusetts at Amherst, institutions of any size which had involved students in coordinating or data-gathering phases of self-studies, large public institutions other than land-grant and peer institutions, and others.

The Search

Two collections of reports were surveyed initially: (1) 16 "vignettes" (field reports) of the earliest users, compiled by Warren (1986a) and published by the Commission; and (2) eight subsequent reports on file in the Commission office, where they were examined January 6, 1987. Requests for additional information were sent to ten of the institutions represented in these two collections, and to nine institutions identified by the Commission as possibly nearing completion of their studies.

Effect of User Reports on Present Study

The final information pool comprised usable reports of 19 institutions. Brief descriptions of their self-study efforts follow; the specific ideas incorporated into or influencing the design of the present study are underscored.

Only one land-grant institution, the University of New Hampshire System, had reported completed studies to the Commission. The system utilized the *Guide* in assessments of Keene State College and the School for Lifelong Learning. At Keene, the entire institution was evaluated, first by four administrators and then by 12 faculty and staff, each working within the confines of a two-day workshop. The Keene report *strengthened the Guide´s validity*; according to its academic vice-president, "Because the instrument was developed cooperatively by respected organizations, it has an air of objectivity and openness which leads to a non-threatening view of one´s efforts" (Gustafson, 1986, p. 39).

The staff of the UNH School for Lifelong Learning, a statewide adult degree program, used the *Guide* along with reaccreditation standards in a two-day workshop. The SLL report called attention to *ambiguous directions* and *cumbersome pages* in the *Guide*, suggested that *one person do the organizing and following through* (on a *timeline*), and expressed the need for more questions in the areas of *programming and instruction* and *faculty/staff development* (Olivier, 1986, pp. 73-78).

The UNH system was also the only one of the 16 peer institutions of the University of Massachusetts at Amherst which had reported a completed study.

Two institutions had involved students in carrying out self-studies. At the University of Lowell (MA), the self-study exercise was initiated by a staff member who is a doctoral student and who collaborated with the associate vice president for instruction. In a two-day workshop, 25 participants met in three groups and produced a two-page list of recommendations for university action (*Report of Working Ses-*

sion on Adult Learners, January 14, 1985; Christine Oatis, personal communications, February 12 and 14, 1987). The Lowell exercise pointed up the necessity of *defining "adult student" precisely for participants*.

An institution-wide self-study at Lourdes College (OH) was carried out by seven adult undergraduates in a business course taught by Dr. Clara Barut. The students interviewed campus administrators, using assigned sections of the *Guide*; interviewees had earlier received copies of the *Guide*, an approval letter from the college's president, and an explanatory memo from Barut. Students were encouraged to press for "Yes" or "No" responses to questions, and "not to take the five-point [rating] scale too seriously" (Barut, personal communication, February 24, 1987). In group sessions, the students completed the *Guide*'s Performance Matrix and prepared a report including personal observations, recommendations, and the performance ratings. According to Lourdes' president, "We have not acted upon the recommendations as a result of the student interviews of the institution's administrators" (Sister Ann Francis, personal communication, March 26, 1987). According to the instructor, some administrators refused to be interviewed, and a reaccreditation self-study team chose not to use "student work" in its own self-study (Barut, personal communication, February 24, 1987).

The Lourdes experience stressed the *importance of careful planning and rehearsing of interview technique*, the *need to establish credibility and professionalism in materials and processes*, and *reasons for anticipating resistance from some subjects*.

The reports of teams from eight other large public institutions contained useful information.

Middle Tennessee State University undertook an assessment of its continuing education unit and certain support units and adult programs, using a team appointed by the president and chaired by the dean of continuing education. They *surveyed adult students by mail*, using a 21-item section of the Adult Learner Needs Assessment Survey (Dean Rosemary W. Owens, personal communication, April 7, 1987). The team's report emphasized *identifying key people with primary responsibility in support areas*, and suggested that a *small team manage the assessment process but involve many people in key roles* (Huffman, 1986, p. 20).

Southeast Missouri State University's (SMSU) assessment was carried out by a task force of faculty, professional staff, and administrators, using interviews and group meetings. According to the SMSU report, in which items selected from 173 recommendations are arranged under *Guide* headings, the "self study revealed little that the institution did not know about itself," but the act of self-study facilitated change (*Guess Who's Coming to College*. . . , 1985, p. 13). The SMSU report *set a tone for the present study* by identifying a campus problem which is

> not a lack of interest but rather a mind-set which has, traditionally, been preoccupied with the needs of the 18-22 year old student. This report intends not to supplant the traditional focus but, rather, to broaden institutional sensitivity to the unique needs of a rapidly growing constituency" (p. 4).

According to the dean of graduate studies and extended learning, the teams also included adult students (Sheila R. Caskey, personal communication, February 18, 1987).

Eastern Illinois University's task force, chaired by the director of occupational education, comprised eight committees representing the institution's Colleges and some support services. EIU's report is arranged so that *each College can see how it compares to the others* (Soderberg, 1986). According to the associate vice-president for academic affairs, several participants "criticized what they called the self-serving and extremely complicated nature of the survey instrument" (Margaret Soderberg, personal communication, February 17, 1987).

The University of New Brunswick's proposal for an assessment project was designed around a steering committee representing two campuses and reporting to the president (*Serving the Needs of Adult Learners at UNB*. . . , 1985, pp. 9-10). According to the dean of faculty, the study was tabled by the president, who "felt we could not proceed with this in view of other priorities," but a survey of adult students, a new committee on recruitment and retention, and an expanded data analysis were initiated (Peter McGahan, personal communication, February 26, 1987). The UNB experience emphasizes the *importance of commitment by top administrators*, recognizes that *adult student opinion is essential*, and shows how the information in the *Guide* can be used at levels short of an institution-wide assessment.

For Ohio University's campus-wide self-study, which covered the main campus, regional campuses, and distance-education programs, a 10-member task force appointed by the provost was assisted by an outside consultant. Five *adult students were interviewed* in a round-table format. OU's report, one of the most useful for the present study, suggested that future *Guide* users *interview faculty from departments other than those designated to serve adults*, to

> show the sizable contribution that their faculty are making to serving the adult student population, . . . to give the academic unit more recognition for their work (Mark, 1986, p. 51).

Noting that the Guide is difficult to disseminate in orderly fashion, the report suggested that institutions which cannot devote time and money to a campus-wide committee-steered study could have "one office with the support of the senior administration" take care of the "mechanics of the assessment process, evaluation, and follow-up interviews," then convene a committee to study the results (p. 52). Student input is essential to illustrate the difference "between the institution´s perception of itself and the the student´s perception of the institution" (p. 50).

The project undertaken by a task force at the University of North Carolina at Charlotte (UNC) was the "equivalent of a whole institutional self-study" and involved open hearings as well as interviews, according to the director of the library, who served as chair (Raymond Frankle, personal communication, February 16, 1987). The group found that following the Guide too closely "led to the collection of a great accumulation of facts, which caused it to lose sight of the overall situation" (Frankle, 1986, p. 57). The UNC report suggested that one or more individuals have released time for the project (p. 57). The chair´s opinion that "a major educational process needs to take place with faculty" (Frankle, personal communication, February 16, 1987) influenced the present study´s attention to definitions of practices, explanatory cover letters, detail in instrument instructions.

Central Michigan University´s two-part report was the most extensive of those obtained for the literature review. A provost-appointed team adapted the Guide; completing parts of it were representatives at

CMU´s off-campus centers across the country and in on-campus adult programs. CMU´s major recommendations for its on-campus component closely resemble, and probably influenced reflection upon, several outcomes of the present study: *clarification of mission, coordination of adult-learner services, publication of existing programs and services, extension of office and class hours, and provision of staff training* (Murphy, Repp, and Senter, June, 1985, and September, 1985).

The self-study process at the University of Missouri - St. Louis was directed by the dean and assistant dean of continuing education and extension. They added *Guide* questions to the institution´s standard questionnaire used in periodic evaluations of academic units, *interviewed all department chairs and returned survey data to them*, and *utilized survey information from peer institutions* (Smith, 1986, pp. 31-34).

Two reports from large private institutions were useful, the first extensively so. Roosevelt University (IL), which enrolls 40,000 students at 16 locations, reviewed its college of continuing education, whose dean administered the process, assisted by other administrators, faculty, support-unit representatives, and existing college committees. The report informed the present study, first, by *characterizing the instrument and its assumptions in a manner which confirmed the choice of the Guide as appropriate for the University of Massachusetts at Amherst*:

> To some, the assessment instrument seemed almost dated, implying a very traditional model of a university which is not designed to serve adults, but which may make various accommodations for adults within its existing structures (Wolfe, 1986, p. 28)

Secondly, the report included numerous suggestions for adapting or augmenting the *Guide* (pp. 28-29), only a few of which were incorporated into the design of the present study: More focus should be given to *curriculum design*, including *interdisciplinary courses and individualized degree programs*, to *seeking adult students' opinions*, to the "political" issue of *academic control of non-traditional learning*, to the treatment of *faculty participation in nontraditional teaching as part of load or overload*, to a *referral system connecting traditional with nontraditional programs*, and to *combining the institution's priorities with needs expressed by adult students*.

Inter American University of Puerto Rico, a multicampus system, used a team of "officials" chaired by an assistant academic vice president to assess six regional colleges and three other adult units. Difficulties arose in involving sufficient faculty and persons with adequate evaluation expertise or understanding of adult programs. Numerous orientation and strategy sessions were required, fostering recognition of "the need to establish an attractive faculty rewarding system" for participation (*Institutional Self-Assessment Study Related to Adult Learners*, 1986, p. 7; see also Rubero, 1986, pp. 9-12).

Finally, new information or comments augmenting earlier ideas came out of reports from four other institutions whose teams and study targets are not described in this review. The team at Coastline Community College (CA) *selectively reviewed the Guide and rephrased questions*, suggested *clearly defining goals for using the Guide, training from one to three committed people in using it*, and *allowing time to modify it* (Secord, 1986, pp. 68, 71). The Whitehead Center for Lifelong Learning at the University of Redlands suggested *having one* *person do the organizing and following through*, on a definite *timeline* (Halsey, 1986, p. 82). Stephens College School for Liberal and Professional Studies (MO) suggested that *the study not coincide with other studies* (Losty and Elliott, 1986, p. 88). The College of St. Catherine (MN) suggested that other users *involve more students, faculty, and staff* than they had (Murphy, 1986, p. 46).

About 50 suggestions from *Guide* users influenced the present study; two-thirds influenced assumptions, scope, or process and one-third affected the choice of content.

The consideration of selected literature in six areas serves to establish a place in several contexts for the study whose design, implementation, and outcomes are described in following chapters.

CHAPTER III

METHODOLOGY

Within typologies of educational research, this investigation is a *descriptive study*, whose purpose is primarily "finding out ´what is´" (Borg and Gall, 1983, p. 354) by systematically describing "the facts and characteristics of a given population or area of interest" (Merriam and Simpson, 1984, p. 58). An examination of the responsiveness of the University of Massachusetts at Amherst to adult undergraduates, the study is essentially a "time slice," a status survey of certain practices in use at the time subjects were asked for responses, and of the extent of subjects´ support for those practices.

Study Design

Principles and procedures of *survey research methodology* guided the development of the research plan and survey instruments and the preparation of data for analysis. Both written (questionnaires) and oral (interviews) instruments were employed in gathering quantifiable and non-quantifiable data.

The research design is in three parts which involve different instruments, methods, and populations. Part I is a questionnaire survey of three groups: (a) department chairs and heads, division chairs and directors, and the heads of the University Without Walls and the Division of Continuing Education; (b) a sample of faculty; and (c) a sample of academic advisors. Content of the three questionnaires developed for Part I was adapted from the publication Postsecondary Education Institutions and the Adult Learner: A Self-Study Assessment and Planning Guide (1984) (hereafter often referred to as "the Guide"). Each questionnaire addresses practices appropriate to the functions and responsibilities of a particular group--academic administrators, faculty, or advisors.

Part II comprises telephone interviews of heads of campus support-service units. The interviews were based on function-specific lists of questions in the Guide and tailored to the particular differentiation of support functions in this university. Questions from the interview repertoire which are appropriate to internal functions of UWW and DCE were added in written form to the Part I questionnaire sent to the heads of those two units.

Part III is a questionnaire survey of degree-seeking adult undergraduates. A standardized instrument, the Student Opinion Survey published by the American College Testing Program, was selected to determine the extent of usage and a satisfaction level concerning college services and a satisfaction level concerning college environmental factors.

Together, the three parts are intended to assess the current and potential responsiveness of the University of Massachusetts at Amherst to adult undergraduates. Parts I and II also constitute a test of a particular adaptation of a published institutional assessment guide.

Research Questions

Postsecondary Education Institutions and the Adult Learner: A Self-Study Assessment and Planning Guide, whose content and intent served as basis for the investigation, was designed to provide a flexible, modular repertoire of questions for use by teams of faculty and administrators in appraising the effectiveness or readiness of their institutions regarding service to adult students. The adaptation of the Guide to an investigation planned and carried out by a single researcher was facilitated by the development of specific research questions. The primary and secondary questions are:

I. How responsive is the University of Massachusetts to adult undergraduates?

A. How extensive is support for certain practices effective in serving adult undergraduates among (1) department chairs and heads and division chairs and directors, (2) faculty, (3) academic advisors, (4) heads of support services, and (5) heads of the Division of Continuing Education and University Without Walls?

B. Which practices effective in serving adult undergraduates are in use by the following groups: (1) departments and divisions, (2) individual faculty, (3) advising units and individual advisors, (4) support-service units, and (5) the Division of Continuing Education and University Without Walls?

C. How do support for, and usage of, practices effective in serving adults vary according to certain characteristics of respondent groups: school, college, and faculty affiliation; percent of adults enrolled; gender; teaching load; academic rank; adult-advisee load; advisor authority level; and faculty or staff advisor role?

D. How satisfied are adult undergraduates with the services and environment of this university?

E. What evidence is there of a climate favoring maintenance or adoption of practices effective in serving adults (1) within departments and divisions, (2) among faculty, (3) in advising units, (4) in support-service units, and (5) in DCE and UWW?

F. How may adult students' suggestions for change in university operation be used to target potential areas for adoption of practices effective in serving adults?

II. How successfully may *Postsecondary Education Institutions and the Adult Learner: A Self-Study Assessment and Planning Guide* be adapted to the University of Massachusetts at Amherst?

Assumptions

The study rationale is grounded in several assumptions, some identified in the earliest planning stages of the research and others related more specifically to the *Guide* as the choice for shaping content and process.

A major assumption is that age is a significant variable in the nature of the needs, goals, and problems of college students. A second assumption is that a significant indicator of the quality of an educational experience is the "appropriateness of the fit between the learner's needs and the institutional response" (Greenberg, 1981, p. 112). Equally important assumptions are that a set of practices shown to be effective with adult students has been identified in the literature; that the validity of the set has been established through collaboration among researchers and users; and that the practices can be labeled as either present or absent in the operation of a particular university unit or in the repertoire of techniques of a particular individual.

The rationale does not assume that the practices are suitable *only* for adult students or for *all* adult students. Hence, it may reasonably be expected that some practices are used in units enrolling few adult undergraduates and that some adult students find (or would find) some practices inappropriate for meeting their needs or expectations.

Further, the rationale does not hold that the absence of a particular practice in this university is "proof" of disregard for adult students. Rather, it allows for the influence of inertia, tradition, majority (*i. e.*, traditional-age-student) demand, and ignorance about adult learners. Warren (1986b) claims that

> [u]sually, inadequate service to adults is not an intentional act but results from ´benign neglect´ through failure to understand or appreciate adult learner needs. Once administrators are convinced of the needs and have a forum in which to consider other options and to see what their colleagues are doing, they frequently come up with their own responses and make desirable changes (p. 30).

The study design is based on some assumptions about the capabilities of target populations and their participation in the research: that subjects have the knowledge required to respond to the questions asked of them, that self-report is a satisfactory method of gathering data, and that motivation to respond is partly a function of well-designed, professionally presented instruments and partly a reflection of individuals´ desire to have some influence on decisions which may affect them. The latter is assumed to be especially true about adult students and their educational programs (see, for example, Greenberg, 1981, p. 194).

The Setting

At the University of Massachusetts at Amherst in the fall of 1986 (the semester preceding the one in which the study was conducted), persons older than 25 constituted 8.7% (27) of the 308 persons enrolled in the institution´s associate (Stockbridge) programs, 6.2% (1,204) of 19,445 baccalaurate-program students, and 74.4% (4,965) of 6,669 graduate students (*1986/87 Factbook*, in press). In contrast to the increasing proportions of over-25 baccalaureate-level students at some comparably large institutions, the proportion of that age group on the Amherst campus has decreased (from 6.7%) since 1978-79, although absolute numbers of adults have increased slightly (1978/79 Factbook, 1979; 1986/87 Factbook, in press). In spring 1987 more than 22,000 applications for fall admission, an all-time record number, were received, primarily from traditional-age students. This record number, of which about one-third were applications from transfer students, signified a 12-to-1 ratio of applicants to available openings ("22,000 Apply for Admission; Up 11 Percent," 1987, p. 1).

Undergraduates of any age may enroll in the regular programs of the university in five categories: (1) full-time student; (2) reduced-load student (a short-term, special-approval status); (3) part-time degree student (in two subcategories, non-classified and special); (4) second-major student; and (5) second-bachelor's-degree student (*1986/87 Undergraduate Catalog, University of Massachusetts at Amherst*, 1986, p. 16). In fall 1986, only about 5% of undergraduates fell in the category of part-time students (those enrolled for fewer than 12 credit hours) (*Admissions and Enrollment Summary*, 1986).

"Adult" Units

The undergraduate, degree-program clientele of two campus units consists primarily of adults. The Division of Continuing Education and University Without Walls were set up to serve persons who cannot or who choose not to enroll in the university on a full-time basis. All UWW majors and all students who matriculate through DCE are classified in one of the five categories above. DCE offers one degree program, the

Bachelor of General Studies. In fall 1986 approximately 30 BGS students, all but one older than 25, were considered "current" but not necessarily enrolled; in spring 1987, seven were actively enrolled.

Beyond the BGS program, however, naming DCE an "adult unit" in terms of its credit programs is largely a misnomer, because it serves thousands of traditional-age students who either enter the university in DCE status or who are enrolled in regular academic units. Academic departments can proactively offer sections of their day-program courses through DCE. DCE also places requests with departments for courses to be offered in the DCE format in response to student demand. Overall, DCE processes about 10,000 (headcount) registrations per calendar year (regular semesters plus winter and summer sessions) in credit programs, and another 5,000 in non-credit and professional programs. From that portion of the credit enrollment representing matriculated students, in fall 1986 DCE generated more than 300 FTE (Full-Time Equivalent) instructed students for inclusion in university day-program enrollment figures; an additional 200 FTE were generated in evening courses which carry degree credit. The remaining non-matriculated persons (those not officially working towards degrees) are not included in the "regular" university undergraduate/graduate totals cited earlier in this section.

Students classified as "DCE students" are more limited than students in other categories in access to day programs. DCE students may enroll on a space-available basis during one designated segment of the registration period (*Student Handbook, Division of Continuing Education*, n. d., p. [4]).

The University Without Walls, administratively housed in the School of Education, in fall 1986 reported an enrollment of 270 students who were earning degree credit on campus and through two off-campus sites. UWW students typically range in age from the mid-20s to mid-60s; about 60% are women (University Without Walls, n. d., p. 3).

Programs of study leading to a UWW degree are planned collaboratively by each student and a faculty advisor, and may consist of courses offered within UWW; courses offered by the university's academic departments in traditional format or through the Division of Continuing Education; independent and other contract-type study; credit by examination; credit-via-portfolio for non-college-sponsored prior learning; and field experiences such as internships and practica. Faculty from throughout the university serve as sponsors of UWW students' programs of study, as evaluators of portfolios, and as supervisors of independent learning activities.

Adult learners are also offered instruction through several other units providing non-credit learning experiences. These were not included in the scope of the survey, but include such units as the Institute for Governmental Services, which provides training programs to business firms as well as governmental agencies; the Cooperative Extension Service, which provides expertise in agricultural, home and family, and consumer subjects via non-credit classes and workshops usually held at community sites; and the Division of Human Resources, which organizes training and personal growth experiences for university employees.

Part-Time Students

Adults often enroll as part-time students. According to the undergraduate catalog (1986/1987 Undergraduate Catalog . . . , 1986, p.

16) and to a regulations booklet, few benefits accrue to part-time status. The booklet states that part-timers in the Non-Classified subcategory "are not entitled to student benefits, other than counselling support"; regarding students in the Special Students subcategory (which "is limited to University employees, other [sic] affiliated with the University, and selected others"), "[n]o academic advising or evaluation of academic credentials is offered, nor are they entitled to any student benefits" (Undergraduate Rights & Responsibilities, University of Massachusetts at Amherst, September, 1986, p. 8).

These conditions are, apparently, an improvement over those of earlier years. In early 1984, a Part-Time Student Task Force created to implement Faculty Senate policies of the previous year concerning the part-time degree-seeking population was notified that its recommendations were being put into practice (Special Report of the Academic Matters Council Concerning Part-Time Students, 1982; Task Force on Part Time Students: Recommendations and Final Report, May 24, 1983; Duffey, 1984). Key among the recommendations of the task force were that "equality between the part-time student (PTS) and the full-time student (FTS) in all academic areas" be established; that existing offices extend their present jurisdiction over part-time as well as full-time students; that registration and withdrawal procedures be identical for the two classifications; that more equitable fee assessments be established; and that transitions from continuing-education programs to university degree programs be made smoother (Task Force . . . Report, pp. 1-3).

Mission

Two mission statements of the university, written more than a decade apart, are dissimilar in their attention to undergraduate clientele outside the 18-22-year-old traditional cohort. In 1976, adults and other "non-traditional" students were treated at length in a university missions and goals statement (Public Service Through Academic Excellence, 1976) which described the institution's legacy and that of other land-grant institutions as their "special institutional spirit" which puts them in a "unique relationship to the people of their state and region--a relationship of need and response" (p. 2). Adult students were a focus of the document's announced commitment to student diversity:

> The social, ethnic, racial, sexual, and age diversity of the Commonwealth's own population must be reflected as far as possible in the UMA student body. . . . To this end, UMA policy must continue to emphasize academic achievement for the traditional applicant, insist on common standards of evaluation for all enrolled students, and, at the same time, provide flexible means of entry and necessary support services for important categories of non-traditional students. The term 'non-traditional' covers a great many cases, and is not easily defined. For the purpose of UMA admissions, it encompasses any student who does not fit the familiar pattern of the traditionally-prepared 18-21 year old student entering the University directly from high school, or transferring directly from a junior college, having met all of the standard admissions criteria. The Amherst campus has many other applicants; people returning to school after several years, workers who can enroll only part-time and during very limited hours, adults in surrounding communities whose situations preclude formal admission and attendance to regular classes on campus, the physically handicapped, applicants whose first language is not English, and those whose prior educational disadvantages reflect inferior schooling rather than the lack of academic potential. The admission of such non-traditional students frequently carries with it concomitant responsibilities in advising, scheduling, or remedial tutoring. The University must assume a particular supportive mission in meeting these responsibilities (p. 7) [emphasis added].

Additional paragraphs delineate the role of the Division of Continuing Education and list the University Without Walls among "special programs."

In early 1987 a set of recommendations under the heading _Introduction to "The Mission" and "The Approach"_ (February 27, 1987) was prepared for campus review. It did not include the words "adult" or "older student," although it contained references to a "highly motivated, academically qualified, and diverse" student body, to making opportunities "available to historically underserved populations" (p. 2), and to increasing "the proportion of minority and non-traditional students who apply, enroll and graduate" (p. 14). Drafts were circulated throughout the campus community during 1987. In early 1988, the Faculty Senate approved a final version (_Research Council and Graduate Council Joint Report Concerning the Mission and Goals Statement_, March 10, 1988), which contained two brief references to adult students, the first under "Scope" [of a flagship campus], the second under "Access" [to a state university]:

> Given the comprehensive character of the University we must provide not only for those who seek undergraduate, masters´ and doctors´ degrees, and post-doctorals, but also for adult and minority students, who have not been well served in the past (p. 2).
>
> In addition, we extend our focus to include the needs of adults (p. 4).

The Guide

The instrument selected to provide content and process guidance for the study, _Postsecondary Education Institutions and the Adult Learner: A Self-Study Assessment and Planning Guide_ (1984), is a publication of the Commission on Higher Education and the Adult Learner.

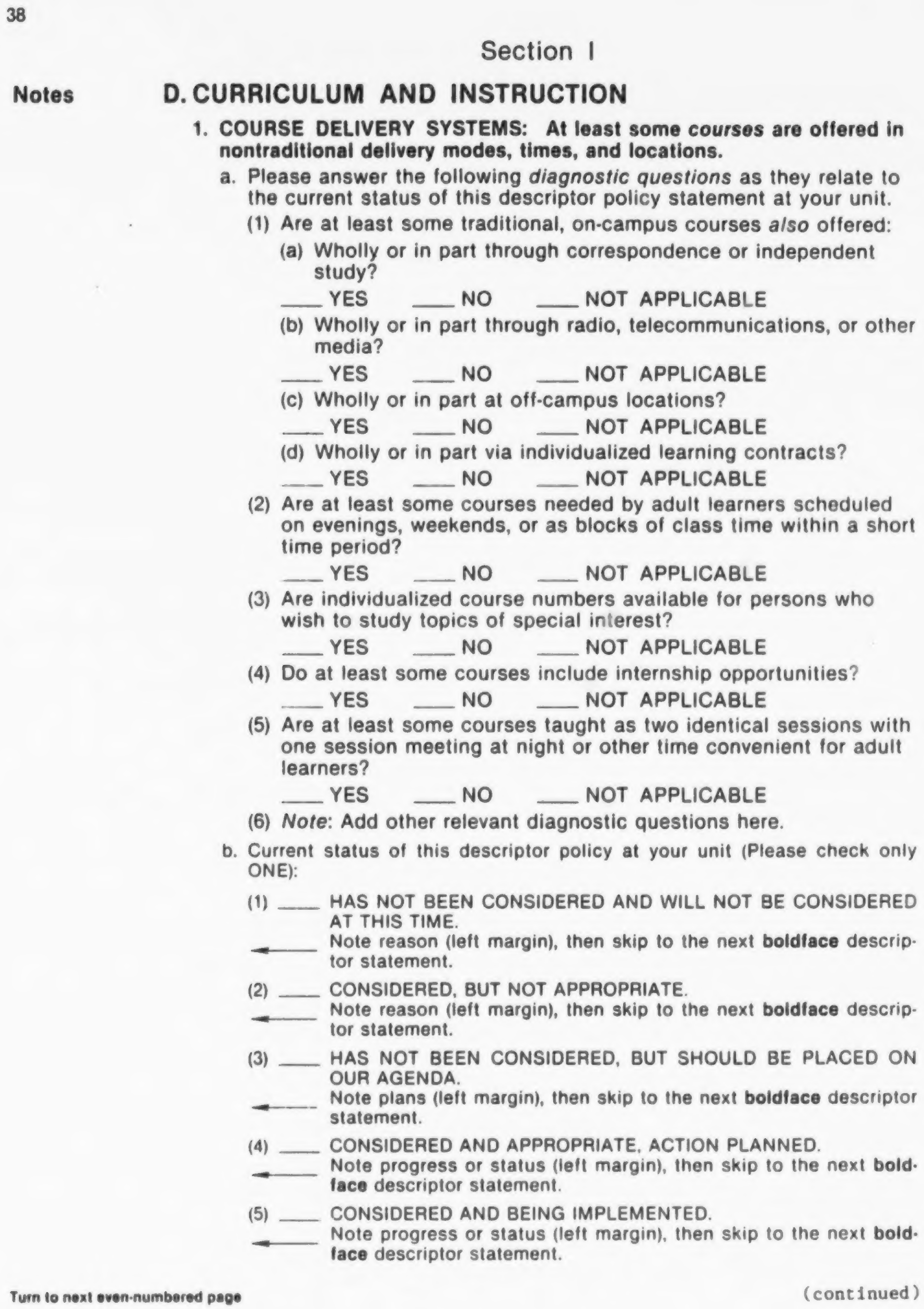
The Commission was established in 1981 by the American Council on Education (ACE) to address developments in both public policy and university operations "that would be markedly more productive for the society and more responsive to adult learners than existing policy and practice" (*General Information*, 1986). Creation of the *Guide* was part of an Institutional Self-Assessment Project, undertaken in cooperation with other agencies, which was intended to facilitate improved institutional performance through self-study. Supplementary manuals and preparatory workshops were also parts of the project. Collaborating in these efforts, underwritten by grants from the Fund for Postsecondary Education and the Arthur Vining Davis Foundation, were the National University Continuing Education Association (NUCEA), The University of Maryland University College, and the Council for the Advancement of Experiential Learning (CAEL, now the Council for Adult and Experiential Learning). CAEL is an independent, non-profit, 300-college consortium founded in 1974 by Educational Testing Service to study assessment of non-college-sponsored learning; it has since broadened its mission to place equal emphasis on service to adult learners through publications, institutes, and grant-seeking (*A Thumbnail Sketch of CAEL History*, 1986).

The work group which developed the *Guide* included Arthur W. Chickering, director of the Center for the Study of Higher Education at Memphis State University, who was the principal developer; David W. Stewart, ACE consultant; Commission members John J. Sullivan and William Warren; and others.

The *Guide* is in workbook format, divided into categories corresponding to typical service groupings in colleges and universities:

baseline data; outreach; admissions, orientation, and advising; curriculum and instruction; academic policy and practice; academic support services; facilities and student services; faculty/staff development and rewards; activities; administrative structure/finance; and mission and objectives. Heading categories are descriptor statements which "frequently typify good policy or practice at institutions where adult learners are well-served" (Postsecondary Education Institutions . . . , Part I, 1984, p. 3). For each descriptor statement three or more diagnostic questions (with space for additional items) allow a respondent to report the presence or absence of the particular policy or practice in the program, unit, or institution under study, and to note whether the practice (or group of practices) has been or is likely to be considered. Facing these pages are pages for performance assessments for each descriptor; ratings are to be shaped by the answers to the diagnostic questions. A five-point rating scale ranging from outstanding (1) to poor (5) is offered for assessment. Figure 1 shows a sample pair of pages in reduced size.

The Guide was created by the Commission for use by institutional teams, preferably led by top administrators, in appraising "the current effectiveness of their institutions, or a unit within their institutions, in serving adult learners," or "to assess institutional readiness to serve an adult clientele," and/or "as an aid to institutional selfstudy [sic] for purposes of accreditation or state approval. . ." (Part I, p. 3). The modular format of the Guide allows study teams to select and modify sections as appropriate for the purposes of the study and the nature of the unit under scrutiny. An extensive bibliography



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Section I

Notes

D. CURRICULUM AND INSTRUCTION

1. **COURSE DELIVERY SYSTEMS: At least some *courses* are offered in nontraditional delivery modes, times, and locations.**

   a. Please answer the following *diagnostic questions* as they relate to the current status of this descriptor policy statement at your unit.

      (1) Are at least some traditional, on-campus courses *also* offered:

         (a) Wholly or in part through correspondence or independent study?

         ____ YES ____ NO ____ NOT APPLICABLE

         (b) Wholly or in part through radio, telecommunications, or other media?

         ____ YES ____ NO ____ NOT APPLICABLE

         (c) Wholly or in part at off-campus locations?

         ____ YES ____ NO ____ NOT APPLICABLE

         (d) Wholly or in part via individualized learning contracts?

         ____ YES ____ NO ____ NOT APPLICABLE

      (2) Are at least some courses needed by adult learners scheduled on evenings, weekends, or as blocks of class time within a short time period?

         ____ YES ____ NO ____ NOT APPLICABLE

      (3) Are individualized course numbers available for persons who wish to study topics of special interest?

         ____ YES ____ NO ____ NOT APPLICABLE

      (4) Do at least some courses include internship opportunities?

         ____ YES ____ NO ____ NOT APPLICABLE

      (5) Are at least some courses taught as two identical sessions with one session meeting at night or other time convenient for adult learners?

         ____ YES ____ NO ____ NOT APPLICABLE

      (6) *Note*: Add other relevant diagnostic questions here.

   b. Current status of this descriptor policy at your unit (Please check only ONE):

      (1) ____ HAS NOT BEEN CONSIDERED AND WILL NOT BE CONSIDERED AT THIS TIME.
      ←—— Note reason (left margin), then skip to the next **boldface** descriptor statement.

      (2) ____ CONSIDERED, BUT NOT APPROPRIATE.
      ←—— Note reason (left margin), then skip to the next **boldface** descriptor statement.

      (3) ____ HAS NOT BEEN CONSIDERED, BUT SHOULD BE PLACED ON OUR AGENDA.
      ←—— Note plans (left margin), then skip to the next **boldface** descriptor statement.

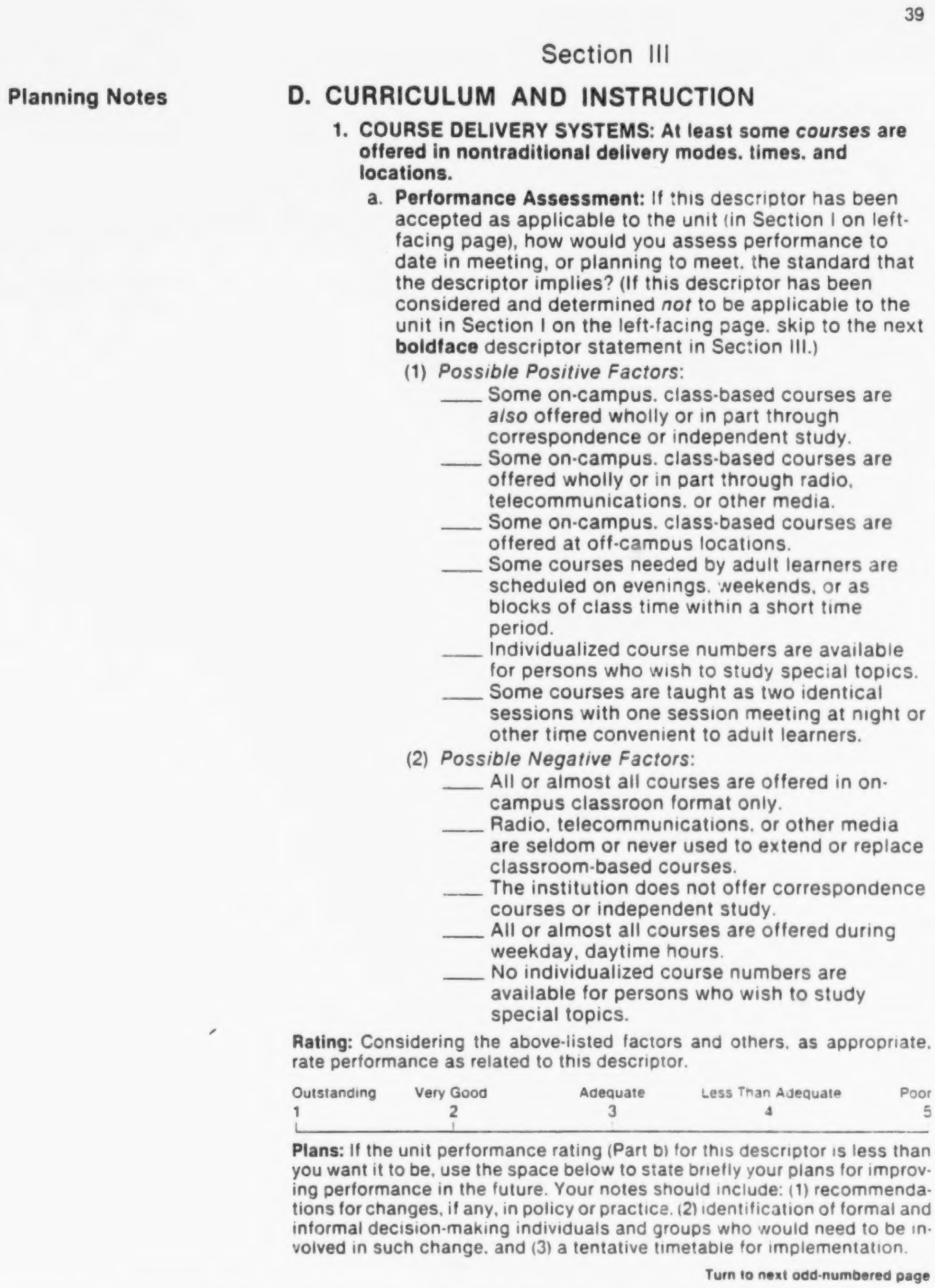
      (4) ____ CONSIDERED AND APPROPRIATE, ACTION PLANNED.
      ←—— Note progress or status (left margin), then skip to the next **boldface** descriptor statement.

      (5) ____ CONSIDERED AND BEING IMPLEMENTED.
      ←—— Note progress or status (left margin), then skip to the next **boldface** descriptor statement.

Turn to next even-numbered page

(continued)

Figure 1. Sample Diagnostic and Performance-Assessment Pages from the Guide



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Section III

Planning Notes

D. CURRICULUM AND INSTRUCTION

1. **COURSE DELIVERY SYSTEMS: At least some *courses* are offered in nontraditional delivery modes. times. and locations.**
   - a. **Performance Assessment:** If this descriptor has been accepted as applicable to the unit (in Section I on left-facing page), how would you assess performance to date in meeting, or planning to meet. the standard that the descriptor implies? (If this descriptor has been considered and determined *not* to be applicable to the unit in Section I on the left-facing page. skip to the next **boldface** descriptor statement in Section III.)

(1) *Possible Positive Factors*:

____ Some on-campus. class-based courses are *also* offered wholly or in part through correspondence or independent study.
____ Some on-campus. class-based courses are offered wholly or in part through radio, telecommunications. or other media.
____ Some on-campus. class-based courses are offered at off-campus locations.
____ Some courses needed by adult learners are scheduled on evenings. weekends, or as blocks of class time within a short time period.
____ Individualized course numbers are available for persons who wish to study special topics.
____ Some courses are taught as two identical sessions with one session meeting at night or other time convenient to adult learners.

(2) *Possible Negative Factors*:

____ All or almost all courses are offered in on-campus classroon format only.
____ Radio, telecommunications, or other media are seldom or never used to extend or replace classroom-based courses.
____ The institution does not offer correspondence courses or independent study.
____ All or almost all courses are offered during weekday, daytime hours.
____ No individualized course numbers are available for persons who wish to study special topics.

Rating: Considering the above-listed factors and others, as appropriate, rate performance as related to this descriptor.

Outstanding	Very Good	Adequate	Less Than Adequate	Poor
1	2	3	4	5

Plans: If the unit performance rating (Part b) for this descriptor is less than you want it to be, use the space below to state briefly your plans for improving performance in the future. Your notes should include: (1) recommendations for changes, if any, in policy or practice. (2) identification of formal and informal decision-making individuals and groups who would need to be involved in such change. and (3) a tentative timetable for implementation.

Turn to next odd-numbered page

Figure 1, continued

Note. From Postsecondary Education Institutions and the Adult Learner: A Self-Study Assessment and Planning Guide, 1984. [Washington]: Commission on Higher Education and the Adult Learner and the American Council on Education. Copyright 1984 by the Commission on Higher Education and the Adult Learner and the American Council on Education. Reprinted by permission.

is provided (Part I, pp. 14-26) for users who engage in "academic planning resulting from use" of the *Guide* (Part I, p. 14).

Out of the experiences of the earliest users evolved two supplementary publications, both issued in mid-1986. One is a planning manual which expands the instructions and suggestions offered in the *Guide* and offers supportive essays (Warren, 1986b); the other is an edited collection of reports from 16 institutions whose teams attended early Commission-sponsored workshops (Warren, 1986a). Because the experiences of other institutions are a body of knowledge which informed the use of the *Guide* in the present study, the reports in the edited collection, plus other available and relevant institutional reports, were an integral part of the Review of Literature.

For the present study, several major departures were undertaken, both from procedures suggested by the *Guide* and from some of the assumptions undergirding those procedures. These departures extend to methods of administration and information-sharing, instrument design, and response format. Below, the changes having broadest and earliest influence are identified; then follows a summary description of how component categories and individual questions were adapted for the purpose of creating an item pool for instrument development. The actual construction of instruments is treated in the *Measures* section of this chapter.

Departure 1. The *Guide* suggests that institutional teams led by top administrators be asked or directed to conduct the self-study of whatever institution or component unit is under scrutiny. Open, publicized commitment to the effort by the most influential administrators is named as a key factor in success. In this study, however, a single researcher planned and carried out the survey, aided by frequent and valuable consultation with selected faculty and administrators, notably the members of the dissertation guidance committee, who were selected for their expertise in higher education organization and management, academic-affairs administration, data analysis and institutional planning, and adult higher education theory and practice. The public commitment of top-level administration to the effort was obtained in the form of a letter of endorsement from the deputy provost; the letter accompanied survey instruments sent to unit heads, faculty, and advisors and also the investigator's letters of introduction sent to heads of support services.

Some justification for concentrating the coordination and administration of the study in one office or under one person while involving many other people was derived from reports of earlier Guide users. Among the references cited in the literature review were reports from University of Redlands/Whitehead Center (Halsey, 1986), Middle Tennessee State University (Huffman, 1986), Ohio University (Mark, 1986), and Coastline Community College (Secord, 1986).

Departure 2. The *Guide*'s performance rating exercises were excluded from the survey design on the grounds that they imply norms based on populations containing proportionately more adult students, and because each scale encompasses an entire category of practices, some of which may apply to a unit and some which may not. The presence of so few adults in this university's traditional academic units does not justify making such comprehensive, scaled judgments.

Departure 3. The customary self-study work-team approach characterized by personal interviews, team decision-making, supplementary note-taking, accumulation of supporting documents, and, ultimately, a final narrative report was replaced in large part by a survey-research approach, one of whose aims was the gathering of quantifiable data from large groups which could be analyzed by computer-assisted statistical methods and reported in tabular as well as narrative form. The personal-contact aspect and the opportunity to accumulate supporting documents were retained in the telephone interviews with support-unit heads described in Part II of the design and in collaborative activities associated with critiquing the adaptation of the Guide, described in Chapter VI. Considered an advantage was that university personnel in various positions and roles could easily use tabular reports to assess the responsiveness of their units and others.

Adapting the Guide

Under its various descriptor headings the Guide contains 227 individual questions for which are provided the response choices "Yes," "No," "Not Applicable," and, in a few places, "Plan to Get." Systematic adaptation to an assessment of the University of Massachusetts at Amherst involved (1) selection of the most applicable questions; (2) an initial sorting of the 11 categories and then of the questions within those categories, according to potential target subjects; (3) elimination of some questions; (4) modification of questions; (5) addition of new questions; and (6) final selection and grouping of items to create survey instruments. Frequent consultation with appropriate faculty members and administrators was a key component of the revision process.

The numerous changes are not all itemized here. Rather, the nature of eliminated items, added items, and major modifications is summarized, examples given, and reasons for actions cited.

Eliminations

Approximately one tenth of the as-published Guide items were eliminated, for one or more of these reasons: (1) having very low applicability to this institution; (2) having low priority as a survey item (especially where optimal instrument length was the more important consideration); (3) requiring too much explanation within the definition; and/or (4) overlapping a question found elsewhere in the Guide. Following is a list of eliminated topics, briefly paraphrased:

> Continuously evaluating adult recruitment efforts; using a marketing consultant; encouraging adults to make "sampling" visits to classes; including self-assessment of learning styles and description of "academic culture" in adult orientation activities; assessing fees for advising part-time students
>
> Scheduling identical day/night course sessions; offering a program allowing several entry points per term; having alternate residency requirements; offering external or extended degrees; allowing alternatives to physical education credits; using appropriate guidelines [other than several already selected] for assessing prior learning; using standardized proficiency tests [other than several already selected]; accepting narrative evaluation of learning and prior learning credit on other institutions' transcripts; allowing adults to register by mail
>
> Using campus housing for residential seminars/workshops appealing primarily to adults; running "the campus bus" nights and weekends; offering staff development programs for seven named support services; determining whether non-credit programs must be self-supporting

Modifications

Two changes affected all chosen Guide items: (1) The structure of each item was changed from that of a complete question to that of a participial phrase, so that (2) a new, two-question response format could be appended. For example, the following item,

> Is a workshop or other experience designed to assist adult learners in developing portfolios that document prior, college-level learning offered?
>
> _____YES   _____NO   _____NOT APPLICABLE

became, in the final unit-head instrument,

	Are you a proponent of this practice?	Is this your department´s practice?
Offering advising, a workshop, or other assistance to students in developing portfolios or other appropriate documentation for evaluating such learning [described in previous items in section]	Yes__ No__	Yes__ No__

Other modifications were (3) refining wording towards greater clarity, specificity, or inclusivity; (4) subdividing items which contained two or more practices towards which a subject might respond differently (for example, correspondence study and independent study); (5) reducing a set of 31 specific demographic questions into eight groupings; (6) creating needed questions out of the descriptor statements which head categories; (7) replacing most of a category (for example, the staff development category) with related items which are more precisely defined and better grounded in the user and theoretical literature; (8) rearranging items within a category or moving items to locations more suited to the division of functions in this university; and (9) removing the word "adult" from its position next to "student" concerning practices effective with a broad age range of clientele.

Additions

More than 50 items were added to the item repertoire, for one or more of these reasons:

(1) A particular practice was missing from a category. Judgments were based on knowledge of customary practices in higher education institutions. For example, questions about scholarship opportunities open to adults were added to the Financial Aid Services section.

(2) A practice was defined in terms too general to provide useful information. For example, the single practice of offering courses through continuing education was divided into the two modes of generating continuing-education courses in this university: faculty- or unit-generated and "response" modes.

(3) A category did not contain enough items to adequately "cover" the range of options in this university. For example, to the list of delivery modes considered alternatives to traditional, on-campus, departmental courses were added interdisciplinary courses and University Without Walls courses.

(4) Earlier users of the Guide had recommended some additions, particularly in the areas of curriculum and course design and faculty development. Many major additions, especially to the faculty instrument, were made for this reason, including a set of six items about faculty service and research activities concerning adult students and a set of course design/delivery practices, such as incorporating stu-

dents' life experiences into course design and varying one's mode of delivery according to the learning needs of a particular class.

(5) Additional practices came out of adult development research and theory, particularly other work of the _Guide_'s principal author, and from ideas of persons in the university who were consulted during the adaptation process. A set of developmental approaches to course design (later designated as optional items) was added to the faculty instrument from this research/theory venue.

Some additions were in the form of extended definitions of terms or short explanatory statements prefacing a group of items selected for a survey instrument.

A few changes involved all three processes: eliminating, modifying, and adding elements. Questions under Mission and Objectives headings, concerning both the _university_ and the respondent's _unit_, were asked of only the Division of Continuing Education and University Without Walls heads. For unit heads and faculty, the "mission" pages were turned into two open-ended questions which sought interpretation of university and unit missions regarding services to adult students. Advisors received a similar, open-ended "purpose" (rather than "objective") question regarding their unit's attention to undergraduate age diversity.

Thus the 227 practice items in the _Guide_ were transformed into items for three survey instruments and items for a structured telephone interview protocol.

Participants

Four hundred fifty-six subjects were asked to participate in the study: 249 in Part I, 24 in Part II, 181 in Part III, and two in an activity associated with critiquing the adaptation of the Guide.

Part I

The three questionnaires described in Part I of the study design are hereafter referred to as the "unit-head instrument," the "faculty instrument," and the "advisor instrument." The unit-head instrument was sent to all department chairs, department heads, division chairs, and division directors in the College of Arts and Sciences (which includes the faculties of Humanities and Fine Arts, Natural Sciences and Mathematics, and Social and Behavioral Sciences), College of Engineering, College of Food and Natural Resources, School of Health Sciences, School of Management, School of Education, and School of Physical Education; and to the director of University Without Walls and the associate provost for continuing education and public service (hereafter referred to as the heads of UWW and DCE). The heads of UWW and DCE also received a selection of items from the repertoire of interview questions asked of heads of support services. Of the 64 persons receiving the unit-head instrument, 56 are male and eight are female.

The faculty instrument was sent to a sample of 127 full-time faculty with rank of professor, associate professor, or assistant professor. A sample size of 125 was initially chosen because it represented 10% of the total number of full-time, ranked faculty listed in the undergraduate catalog (1986/87 Undergraduate Catalog, University of Massachusetts at Amherst, 1986). The pool of eligibles numbered 1,142 after these exclusions: persons with academic rank but holding full-time administrative positions; department chairs and heads; division chairs and directors; and persons on sabbatical leave. The desired sample size was retained, thus representing 11% of the revised pool. Every ninth name was drawn from an alphabetical listing of eligibles. Of the 127 persons drawn, 106 are male, 21 female. Proportions by school, college, and faculty affiliation were approximately equal to proportions in the larger pool, as determined from a second count by unit in the undergraduate catalog. Information obtained at sampling time, in addition to name, rank, and gender, included department; school, college, or faculty affiliation; and campus address. Teaching level (undergraduates only, undergraduate and graduate students, or graduate students only) was requested on the faculty instrument (see Hindsights, Appendix F).

The advisor instrument was sent to 58 academic advisors who were selected in varying proportions from categories related to authority levels and spheres of influence. The category model was conceptualized by the associate dean of the College of Arts and Sciences (and director of CASIAC, the Arts and Sciences advising center) and verified by the chief undergraduate advisor of the School of Education. The pool from which eligibles were identified was the current list of chief undergraduate advisors prepared for students and others by the CASIAC office (Chief Undergraduate Advisors, as of 1/9/87, 1987). Excluded from eligibility were persons who had already been selected for the unit-head or faculty subject lists, persons who had pilot-tested the advisor instrument, and one of any two persons holding identical positions in the same advising unit.

The first category in the selection model included all those advisors with first-line authority and signatory power in large organizational units (colloquially termed the "advising deans," although not all hold the official title of dean). The second category contained all advisors who have either second-line authority to those in the first category or first-line authority in a smaller academic program (such as the Inquiry Program). In the third category, that of chief undergraduate advisors for academic departments and of faculty assigned to CASIAC for the semester, 32 (one third) of the 94 eligibles were drawn by lottery. All advisors in the fourth category, that containing specialized, satellite units such as the Writing Program and the Bilingual Collegiate Program, were added to the list. The total, which included 39 males and 19 females, 44 faculty and 14 staff advisors, represented about 40% of the names on the CASIAC list. An additional characteristic, the proportion of adult students in the respondent´s typical advisee load, was obtained via the survey instrument.

Part II

A preliminary list of campus support units was developed using Guide headings as a checklist. Because functions of some university support units overlap or mesh with others, assistance in refining the subject list and in grouping interview topics was sought from the dean of academic support services, under whose jurisdiction a third of the units fell (Annual Report, 1985-1986, Division of Academic Support Services, 1986, p. 4). The final list of 24 subjects (14 male, 10 female) contained the names of persons serving as directors or coordinators of the following offices:

Bilingual Collegiate Program
Campus Parking
Center for Counseling and Academic Development
Child Care Services
Collegiate Committee for the Education of Black
  and Other Minority Students
Communications Skills Center
Commuter Area Government
Educational Access and Outreach, concerning
  Everywoman's Center (which was without a director)
Financial Aid Office
Handicapped Student Affairs
New Students Program
Office for Cooperative Education
Office of the Registrar
Student Affairs Research and Evaluation Office
  (former director interviewed; new director
  had not been hired)
Student Activities
Student Government Association (president)
Transfer Affairs
Undergraduate Admissions
University Housing Services
University Internship Program
University Library
University Mental Health Services
University Placement Services
Veterans' Assistance and Counseling Services

Part III

The pool from which the sample of adult undergraduates was drawn consisted of all students who were 25 years of age or older as of January 1, 1987, and who, at the time the sampling was done (April, 1987), were enrolled as matriculated students in baccalaureate degree programs and attending on either a full-time or part-time basis. Subjects in three degree classifications were selected as recipients of a standardized survey instrument: (1) students seeking a Bachelor of General Studies, the degree offered through the Division of Continuing Education; (2) University Without Walls students, who customarily receive a Bachelor of Arts or Sciences degree through the School of Education; and (3) students hereafter referred to as Other Majors, those matriculated in 10 school, college, and faculty designations (see Definitions of Terms, Chapter I).

Larger proportions of students were selected from BGS and UWW than from the Other Majors population. Because the variability among students' individual programs of study is greater, by design, in the BGS and UWW programs (particularly the latter because of the availability of several modes of inquiry) than in the more traditional programs of other academic units, the possibility that satisfaction would similarly be more variable was a concern. Hence the size of the sample was increased in order to increase precision (or reduce uncertainty).

Bachelor of General Studies: All currently enrolled BGS students older than 25 were selected as subjects. The group of seven included three males and four females. Two were classified as full-time and five as part-time students.

University Without Walls: Every third name on an official enrollment roster of UWW students was selected, producing 85 subjects. Twenty-six are male, 59 are female. Seventeen were enrolled as full-time and 68 as part-time students.

Other Majors: A figure equaling the combined total of selected BGS and UWW subjects was chosen as a suitable sample size of Other Majors subjects. Every 14th name on an alphabetical enrollment roster of majors in the 10 school, college, and faculty designations produced 89 subjects (about a 7% sample of eligible Other Majors). Fifty-two are male, 37 are female. Sixty-three were full-time and 26 were part-time students.

Other participants: One staff member each from UWW and DCE was asked to participate in informal interviews based on the unadapted

Guide, in order to establish a basis for critiquing the adaptations (see Chapter VI).

Measures

The measures used in the study consist of the Guide-based instruments developed for Parts I and II and the standardized instrument purchased for Part III.

Part I

For the first part of the study, three pencil-and-paper instruments were constructed from a pool of phrases describing practices effective in serving adult students. The pool was derived from the publication Postsecondary Education Institutions and the Adult Learner: A Self-Assessment Study and Planning Guide (1984); modifications and additions made to the Guide's contents in establishing the pool were described earlier in this chapter.

The goals of clarity, precision of expression, and enhancement of response rate were as important in the instrument development process as was the selection of appropriate content. Sources which aided conceptualization of the "ideal" instrument included Erdos (1970); Linsky (1975); Heberlein and Baumgartner (1978); Childers, Pride, and Ferrell (1980); Borg and Gall (1983); Altschuld and Lower (1984); Baumgartner and Heberlein (1984); Lockhart (1984); and Sudman and Bradburn (1984). These essential characteristics were gleaned: ease of reading; non-biasing, non-threatening explanation; absence of "leading" questions; absence of complex questions eliciting more than one answer; elimination of unnecessary questions; placement of interesting questions at the beginning; placement of priority items away from the end; provision of space for comments (with no more than a few words required); and avoidance of the words "questionnaire" or "checklist" in the instrument title. Details of how the literature influenced decisions about general appearance, the instruction block, and the response format may be found in Appendix A.

The question formulated to be asked in the first part of the dual response format was "Are you a proponent of this practice?" The word "proponent" was chosen over similar words such as "supporter" and "advocate." "Proponent" seems to have a more precise meaning than "supporter" and a less militant connotation than "advocate" (see Appendix A for additional rationale behind the decision). The following definition, one of several found in various dictionaries, is appropriate: "proponent . . . 3. A person who supports a cause or doctrine; adherent" (Stein, 1983, p. 1153)

Missing, however, from available lexicons is an abstract noun corresponding to "proponent" in the way the nouns "support" and "advocacy" correspond to "supporter" and "advocate." The gap was filled by coining the word proponence. The coining process was aided and encouraged by an etymologist (David Justice, Merriam-Webster Publishing Co., personal communication, October 2, 1987).

The new word proponence is defined, at the instrument-development level of the study, as the abstract quality one exhibits when one is a proponent of (i. e., is in favor of or receptive to) an idea or procedure. Operationally, the extent of proponence for a practice is expressed as the proportion of respondents who indicated they are proponents of a practice.

The other question in the dual response format, "Is this your practice?", was used in instruments where a measure of individual activity was desired. A variation, "Is this your unit´s practice?", was used in unit-head and advisor instruments where a measure of department/division or advising-unit activity was sought.

The dual response format allows data to be analyzed in several ways--first, as separate measures of proponence and usage, and later, in combinations such as Yes/Yes (signifying proponent/users) and Yes/No (signifying proponent/non-users). (A system of weighting combinations is demonstrated under Potential Responsiveness in Chapter IV.)

Unit-Head Instrument

The instrument designed for department chairs and heads and division chairs and directors comprises 47 items of practice in the two-response format, grouped under five headings, plus two open-ended questions under a sixth heading. In abbreviated form, the topics are

> *Course Delivery Practices*: Offering traditional courses by correspondence study, by independent study, at off-campus locations, in media formats, through the Division of Continuing Education; scheduling courses in longer, less frequent blocks, in evenings or on weekends
>
> *Academic Program Information and Delivery Practices* [definition of "program"]: Offering an entire departmental program by correspondence study, by independent study, at off-campus locations, in media formats; making part-time completion possible within time limits, outside daytime hours; allowing individualized courses of study; designing brochures to show program structure, to show age diversity as desirable; attracting adult students
>
> *Credit Evaluation Practices* [short explanatory paragraph): Accepting DCE credits, other institutions´ day-course and continuing-education credits as equal to resident credits; allowing application of credit-by-examination (three specified exams plus departmental exams), credit-by-equivalency (three specified methods), and "other" prior learning; offering help in portfolio documentation of noncollegiate, college-level learning

Practices Concerning Academic Performance: Making departmental advising available generally, in evenings or on weekends, off campus; maintaining advising referral network; monitoring student progress, retention, dropout rates; maintaining a peer assistance program; making accelerated courses available; making remedial courses, if any, available evenings or weekends, off campus, in media formats

Faculty and Staff Development Practices: Having faculty discussions about student learning styles and completion characteristics; recognizing faculty via reward system for work with adult students; sponsoring staff workshop about adult learner needs

Mission [explanatory paragraph]: Open-ended questions asking for interpretation of University mission and unit mission regarding services to adult students

Faculty Instrument

The faculty instrument is made up of 34 items in the two-reponse format, grouped under five headings; three items requiring a single response, under a sixth heading; six optional items requiring a single response, under a seventh heading; and two open-ended questions under an eighth heading. Proportionately more items from sources other than the *Guide* were added to the faculty instrument than to the unit-head or advisor instruments. In abbreviated form, the contents are

[Space to indicate teaching level]

Practices Pertaining to Instructional Modes: Teaching a correspondence course, an independent study course, off campus, outside daytime hours, through DCE (two modes), via individualized learning contract; teaching a course with an experiential learning component, a competency-based course, an interdisciplinary course; working with UWW students

Academic Advising and Support Practices: Giving positive consideration to a potential adult enrollee's age, experience; helping students document college-level, non-collegiate learning; advising students about curriculum flexibility; helping adults plan individualized majors; being available for advising outside daytime hours, off campus

Course Design and Delivery Practices: In course design/revision, incorporating students' life experiences, varying course structure, varying personal role, varying delivery mode

Faculty Development Practices: Participating in national/regional conferences about how students learn, about adult students' learning needs, about assessment of outcomes; participating in local workshop on any of those topics; leading efforts related to adult learning; reading about adult college students

Service and Research: Working with adult students outside the university (five categories of settings); undertaking service/research focused on adult students [space to describe it]

Recognition: Mentioning work with adult students in annual report; receiving recognition for such work via reward system, from external sources

Mission [explanatory paragraph): Open-ended questions identical to those in unit-head instrument

Student Development Approach (optional section) [explanatory paragraph]: In last five years, designing/revising course in ways which challenge cognitive, ego/personality, moral/ethical development; responding to diverse learning styles, adults' pragmatic needs; encouraging movement to internal evaluation

Advisor Instrument

Shortest of the three pencil-and-paper instruments, the academic-advisor instrument comprises 35 items in the two-response format. For the first 30, which are grouped under three headings, the "practice" question concerns the advising unit; for the last five items, grouped under a fourth heading, the "practice" question concerns individual advisor practice. Two open-ended questions are placed under a fifth heading. In abbreviated form, the contents are

Practices Pertaining to the Availability of Advising: Making some advising available evenings/weekends, off campus; providing information about other advising sources, personal counseling sources; using computer-assisted advising; designing the advising program around age-linked needs; having some personnel trained in advising adults

Credit Evaluation Practices [short explanatory paragraph]: Advising students about credit-by-examination (three specified exams plus department exams), credit-by-equivalency (three specified methods); advising students about modes of instruction--correspondence study, independent study, off-campus programs, DCE courses, UWW courses, media-format courses, experiential-learning courses, interdisciplinary courses

Data Collection: Collecting unit advisee information in eight general categories (examples provided)--demographic, socio-economic, student descriptive, student progress, previous learning experience, personal needs, academic needs, other situational data

[Space to indicate adult-advisee load]

Individual Advisor Practice: Encouraging individualized majors; advising about curriculum flexibility; participating in advisor workshop about adult learner needs; causing other advisors to broaden knowledge of adult learners; reading about adult college students

Open-Ended Questions: Interpretation requested of unit´s purpose as related to undergraduate age diversity; suggestions invited for increasing unit responsiveness

Pilot-Testing

Initial drafts of the three Guide-based pencil-and-paper instruments were sent to pilot readers. The unit-head instrument was read by five faculty members who are former chairs of departments (economics, sociology, communication disorders, sports studies, mathematics) in this university and by four administrators (dean, department/division chairs) at other higher education institutions in the area. Pilot-testing the faculty instrument were seven personnel in this university: four full professors (music, political science, theater, sociology), one lecturer (nursing), and three staff administrators (education, counseling center) who also teach. The advisor instrument was critiqued by four professional staff members (admissions, DCE, education, women´s studies) who have full- or part-time responsibilities for advising undergraduates in this university.

In a cover letter, pilot readers were asked to complete the instrument as if they had been selected for the actual study, and to note the time required for completion and any impediments to their progress through the items. They were also asked to evaluate the overall appearance and clarity of the instrument.

Feedback was obtained from the pilot readers in telephone conversations. Many also sent back annotated instruments. These major changes were made as a result of pilot-reader reaction: (1) The "Should this be your practice?" response, first of the possible response forms, was discarded; (2) general instructions were revised towards greater clarity, precision, and ease of scanning; (3) specific instructions for the two-response format were revised to emphasize that the receptivity measure sought a level of judgment above one´s immediate circumstances or constraints; (4) the differences between advising-unit and individual-advisor sections were emphasized; (5) a space to indicate adult-advisee load was inserted in the advisor instrument; and (6) three items of practice were eliminated as ambiguous, obscure, or misleading.

Part II

A repertoire of items for telephone interviews of heads of support units and supplementary items to send to the heads of the Division of Continuing Education and University Without Walls was selected from the Guide-based pool. The repertoire comprised 210 items grouped in these sets, which correspond to Guide headings:

Set A: Practices pertaining to data collection and analysis
Set B: Outreach practices
Set C: Admissions practices
Set E: Practices pertaining to continuing education programs

Set F: Practices of library, learning resource centers, and academic support services
Set G: Practices of registrar, career services, personal counseling/mental health services, placement services, child care services, housing services, parking services, and "other" facilities and services
Set I: Practices pertaining to student government and extracurricular activities
Set J: Practices pertaining to administrative structure
Set K: Practices pertaining to mission and objectives

Items assumed to be pertinent to prospective interviewees were selected; pages were photocopied and placed into individual packets. An arbitrary interview limit of 30 minutes guided the number of items selected and determined priorities. Consultation with the dean of academic support services and examination of catalogs and other materials guided the kinds of topics selected. Some items of broad application, such as those concerning needs assessments and dissemination of information, were placed in each packet.

About one-fourth of the items in the repertoire had also been selected for one or two of the three pencil-and-paper instruments used in Part I, primarily the advisor instrument.

The subcategories in the interview sets, the numbers of questions under each heading, the procedure for item selection, and the preparation of instructions and an introductory letter are in Appendix A.

Reliability and Validity of Guide-Based Instruments

The Guide was not designed as "a research instrument generating data for someone else to use," but as a flexible tool whose use should purposely incorporate differences of opinion so that "findings and recommendations will have a more realistic basis in fact" (Warren, 1986b, p. 15). Psychometric techniques, such as factor analysis and "empirical keying" of items, were not used to develop the instrument;

at least such procedures are not mentioned in introductory information or the supplementary manual.

It is likely that the Guide does have acceptable validity, however. First, it likely has content as well as construct validity, since its construction was based upon the consensus of well-established experts, and its contents are the result of blending theories of adult development and effective institutional response with practical approaches to adult students in a variety of postsecondary settings. It likely also has face validity, in that the terms and concepts are familiar and sensible to persons in higher education. For the present study, considerable effort went into refining and modifying items and instructions within instruments and obtaining reactions of pilot readers, so as to ensure as much validity and reliability as possible prior to instrument administration.

It follows, then, that if the Guide has a degree of validity, it has some reliability, as the former cannot exist without the latter. The absence of measures of statistical reliability in the Guide itself could be a source of concern. But this concern may be moderated in that the study was designed to measure group differences rather than individual differences; thus lower reliability is acceptable, since "group performance is more stable than individual performance" (Borg and Gall, 1983, p. 292). Also, the lengths of Guide-based instruments argue for increased reliability rather than unreliability.

Part III

Recommendations that student opinion be included in institutional assessments of services to adult learners were found in several reports of earlier users of the Guide (for example, Mark, 1986, p. 50). However, for the present study, shifting all or a major part of the Guide from its service-providing, policy-analyzing orientation to a service-receiving student orientation presented itself as too great a departure from the intent of the authors. Creating and testing a totally new student instrument was beyond the scope of the study.

A standardized instrument which has been used in a variety of college and university settings, across a broad age range of students, was selected for Part III: the Student Opinion Survey (SOS, four-year-college form), published by the Evaluation/Survey Service (ESS) of the American College Testing Program (ACT). More than half of its items were judged to correspond to topics addressed by the Guide-based instruments prepared for Parts I and II.

The SOS is one of 11 ESS multi-color, optically scanned instruments containing items "written at a level that permits general evaluation of college programs and service areas" (The ACT Evaluation/Survey Service, n. d., p. [2]). ESS estimates completion time of the four-page instrument at 20 minutes. Section I has space for 16 items of personal or background information. Section II is a list of 23 college services to which responses indicating usage/non-usage and satisfaction level are sought. Section III seeks satisfaction levels for 42 college "environmental factors" grouped under these headings: Academic, Admissions, Rules & Regulations, Facilities, Registration, and General. Satisfaction scale points range from (1) very dissatisfied to (5) very satisfied; the Section III scale also has a "Does Not Apply" checkpoint. Section IV provides response spaces for up to 30 user-chosen multiple-choice questions. Section V is a half-page space for written comments and suggestions.

Normative data made available to SOS users are based on records of 86,366 students in 203 colleges which administered the instrument between January 1, 1984, and December 31, 1986. Subgroup norms are provided for 15 categories of respondents, including 21,247 students who were age 23 or older when surveyed (*Student Opinion Survey Normative Data*, [1987], p. [1]).

Validity and Reliability

For the present study, both the validity and reliability of the SOS were judged to be acceptable. The SOS and 10 other instruments developed by the ESS were subjected in the developmental and trial periods to several procedures designed to enhance face, content, and construct validity. According to the user´s guide,

> The validity of items in the ESS instruments depends primarily on literature review, consultation with content experts, pilot testing of the instruments, and ACT´s experience in instrument design and construction. Perhaps the most direct evidence of the face validity and content validity of the instruments lies in the items themselves. . . (*User´s Guide*, 1985, p. 16).

Other studies of the accuracy of self-reported types of student information were used by ESS developers to support their claim that their instruments are "an accurate and valid source of student data" (p. 16). The reliability of item response in the SOS was assessed in a test-retest administration. The average percent of identical item responses on the two administrations ranged from 57% to 67%; the percent of responses within one scale point of each other ranged from 93% to 97%. The correlation between the average ratings of "satisfaction" items was .92 for the college services section and .95 for the college environment section, causing the developers to claim that "it is evident that the average satisfaction rating[s] for various aspects of the institution exhibit a high degree of stability" (p. 17).

Item Targeting

Prior to local administration, SOS topics were compared to those in Guide-based instruments, and a list generated of the closest connections. From these lists were selected 10 of the 20 college services and 20 of the 42 environmental aspects as "key" items to explore in analysis of survey data. An open-ended question was selected for the "comments and suggestions" space:

> If you had the power to change any policies, practices, attitudes, or behaviors of this institution towards adult students, which TWO would you change first?

Procedures

Topics covered in this section include the scheduling, preparation, and administration of the survey instruments described in the Measures section; research findings which guided those processes; the selection and pilot-testing of an incentive for student response; and followup procedures.

Scheduling

Part I instruments were sent via campus mail and Part III instruments by postal mail during April, 1987. The unit-head instrument and support-service supplementary packet were sent to the heads of the Division of Continuing Education and University Without Walls on May 18. Telephone interviews of support-unit heads (Part II) were begun the week of May 25, 1987, and concluded in mid-June.

Preparation of Part I and Part III Mailings

Lockhart's (1984) "stages of mailed questionnaire returning behavior" (receiving, opening, forming an overall impression, answering, and returning) guided most of the choices made in preparing survey instruments for distribution and administration; the work of Erdos (1970) was also helpful.

Careful attention was given to obtaining correctly spelled names, current campus addresses (university personnel), and mailing addresses (students), and to proofreading envelopes and labels. Outer envelopes were clearly stamped either "CAMPUS MAIL" or "FIRST CLASS MAIL." The 9 1/2 x 12 1/2 manila outer envelope was designed so that it would not resemble "junk" mail. Permission was obtained to use the university's return-address style and format, including the institutional logo, and to purchase letterhead and envelopes through university printing services. A rubber stamp was used to place the investigator's name above the return address. Commemorative stamps were chosen over meter stickers.

Cover pages

Two letters were attached to the instruments sent to university personnel. On top was a letter from the investigator which requested participation, estimated the completion time, provided a brief rationale for the study and an indication of its scope, assured that individual responses would not be revealed, called attention to the return envelope, and offered a telephone number so that additional information could be sought. Letters were individually prepared via word processor, bearing not only the recipient's name and address but also a specific reference in the body to adult enrollment figures in the recipient´s school, college, or faculty. (A copy of the letter sent to unit heads is in Appendix B.)

Anonymity was not offered; rather, attention was called to an identification number stamped at the end of the questionnaire and to its purpose. The benefits of being able to target followup communications to non-respondents only and of using key characteristics of respondents in data analysis were judged to outweigh possible negative effects of identification numbers. (Neither confidentiality nor anonymity were guaranteed the heads of DCE and UWW, who were "samples of one.")

The second letter was a letter of endorsement from the university´s deputy provost. The letter, typed on official letterhead and then photocopied, tied the proposed research to other local efforts and encouraged participation. (A copy of letter is in Appendix B.)

Student subjects received one letter, from the investigator, along with the Student Opinion Survey. Personally addressed, the letter acknowledged the student´s busy schedule; emphasized the importance of his/her opinions; explained confidentiality safeguards; and pointed out that some background items had been omitted to conserve response time, that a special question had been added, and that a return envelope and incentive were included. (A copy of the letter to students is in Appendix B.) A preferred return time ("within a week") was named, although evidence is inconclusive that naming a deadline or date increases response rate.

Student Incentive

Studies on the effect of incentives on response rate have had varying results. A University of Massachusetts decal, three inches in diameter and bearing the seal of the institution, was chosen after the following "piloting" procedure:

Fourteen adult students in an evening class sponsored by the University Without Walls were asked to rank six features on a scale ranging from (1) most likely to influence to (6) least likely to influence according to how much effect each feature would have in causing them to complete and return a mailed questionnaire. The group ranked the features in this order:

1. A thank-you in the letter, plus a decal as a token of appreciation (average score, 2.36)
2. A personalized letter (3.00)
3. A thank-you in the letter (no token of appreciation) (3.57)
4. A special question inviting suggestions about the university (3.71)

5.5. A non-personalized letter (4.14)
5.5. A thank-you in the letter, plus a quarter (25 cents) as a token of appreciation (4.14)

(It should be noted that although the opportunity to answer a special question ranked comparatively low as an influence upon the decision to respond, more than 80% of students who returned the SOS took advantage of the opportunity.)

For ease of return via campus mail, size 9 envelopes bearing the investigator's name and campus address were provided to unit heads, faculty, and advisors. Because the Student Opinion Survey should remain unfolded for error-free optical scanning, student respondents were provided 9 x 12 manila envelopes bearing the investigator's name and campus address and "FIRST CLASS MAIL" stamped in red. Commemorative stamps were again used rather than business-reply imprints; Linsky

(1975) suggests that "people find it psychologically difficult to throw away an unused stamp because of its monetary value, whereas the postage permit does not represent a cost to anyone unless it is used" (p. 89).

Characteristics identified by Lockhart (1984) as inhibiting return behavior include the presence of incriminating or objectionable questions and requests for donations. The latter were easily avoided, but other than general care in editing and revising questions to maximize clarity and minimize personal threat, no method was devised to detect which questions were likely to be perceived as objectionable.

Followup Procedures

Additional contacts with survey subjects are recognized in the literature as significantly improving response rate to mailed questionnaires. Although "pre-contacts" were effective in studies reviewed by Linsky (1975), they were used in the present study only for introductory letters to prospective interviewees in support-service units. For reasons of time and cost, they were not used with subjects who were to receive pencil-and-paper instruments. Followup procedures were systematically planned for the latter groups, however; studies reviewed prior to 1978 showed that the "number of contacts was the best single predictor of final response rate" (Baumgartner and Heberlein, 1984, p. 67).

First Followup

Approximately two weeks after the initial survey instrument and cover letter(s) were sent to unit heads, faculty, advisors, and students, a first followup letter was sent to non-respondents. The quantities sent were: unit heads, 32 (52% of the original total surveyed); faculty, 70 (55%); advisors, 26 (45%); and students, 95 (52%).

Second Followup

Approximately 10 days after the first followup letter was sent, a second letter went out to non-respondents along with a replacement copy of the appropriate instrument. The second followup to students introduced two new elements: an option to omit Social Security number and other background information and an offer to put the recipient's name on a mailing list for summary data from the project. Numbers of second followup letters sent were: unit heads, 23 (37% of total surveyed); faculty, 54 (43%); advisors, 20 (34%) and students, 66 (36%).

Third Followup

Attempts were made to telephone non-respondents beginning approximately two weeks after the mailing of the second followup letter and replacement instrument. Because this period began the week after university commencement, a high rate of contact with faculty non-respondents was neither anticipated nor achieved. Messages were left in departmental offices for the 13 unit heads who had not responded, and with secretaries or on answering machines for about half of the 30 non-responding faculty and nine non-responding advisors. Calls to non-responding students were proportionately more successful: in 28 of 36 cases, either the student him/herself was reached or a message left.

Part II: Telephone Interviews of Support-Unit Heads

Letters of introduction were mailed to 24 heads of support services at least one week before interview appointments were made.

Similar in appearance to, but longer than, the cover letters accompanying pencil-and-paper instruments, they incorporated some of the descriptive material about the study which had been placed in the introductory blocks of pencil-and-paper instruments. (A copy of the support-unit letter is in Appendix B.)

A limit of three attempts to set up an interview within the allotted period was arbitrarily established. One person asked that the questions be sent to her in written form; she returned the completed packet within the survey period. Only one interview of the hoped-for 24 could not be scheduled in the allotted time; that person was filling two roles, as director of his own unit and acting director of another.

Interviewee comments made in addition to the requested "Yes/No" responses were written verbatim or paraphrased on the category sheets prepared for each interview. Several interviewees sent brochures and other descriptive information about their units.

Letters of appreciation were sent to interviewees within the week following the interview.

Data Analysis and Display

In this section are described categorization and coding schemes for quantifiable data, statistical procedures, content analysis procedures for non-quantifiable data, and methods for displaying data in tables.

Categorization and Coding Schemes

For the Guide-based instruments in Parts I and II of the study, three categories of possible responses were predetermined: Yes, No, and failure to respond (blank). Additional categories were derived from the responses themselves when data were first aggregated for analysis: Rarely, Conditional, and Other Comment.

A six-digit (six-choice) scheme was used to code responses for entry into the university's mainframe computer. A conservative approach was taken to categorizing and coding, meaning that few inferences were made from incomplete or unclear expressions.

1. No: Only an unambiguous and unqualified "No," or, in a few cases, a phrase or sentence which was clearly the equivalent, was placed in this category.

2. Yes: Only an unambiguous and unqualified "Yes," or, in a few cases, a phrase or sentence which was clearly the equivalent, was placed in this category.

3. Rarely: A comparatively small number of responses to "Is this your [unit's] practice?" were placed here. They include "Rarely," "Occasionally," and "Once or twice," without an accompanying "Yes" or "No" in the appropriate blank. Because instructions asked if the practice was a "normal" part of operations, the existence of at least two possible interpretations--that the practice is a normal activity rarely used, or that the practice is rarely a normal activity--meant these could not be coded either "Yes" or "No."

4. Conditional: A comparatively small number of responses, mostly to "Are you a proponent of this practice?", were placed here. Most of these included an actual or implied "Yes"; all contained a qualifying phrase such as "but only if we are given more resources," "but not for me," or "only if certain standards are met."

5. Other Comment: Here were placed all other responses, including symbols, which conveyed meaning or partial meaning not clearly classifiable in codes 1-4. They included question marks, "N/A," expressions of indecision such as "not sure," and longer explanations of attitude or practice from which no clearly positive or negative theme could be deduced. A few respondents noted, without also checking "Yes" or "No," that a brochure or other material had been attached; these "attachment notes" were placed in the "other comment" category. (No attempts were made to supplement respondents' hand-written responses with information from attached printed materials.)

0. Blank: Only those response spaces in which no meaningful mark had been made were coded as blank. If a respondent's "other comment" stretched across both response columns,

> both the "proponent" and "practice" responses were coded "other comment"; if the "other comment" was confined to only one column, a "blank" was recorded for the adjacent space.

Responses in the Rarely, Conditional, and Other Comment categories accounted for only 3.0% of responses to non-optional items in unit-head, faculty, and advisor instruments; blanks accounted for 3.5% (see Completion Rate section, Chapter IV, and Completion Rate Characteristics, Appendix C). Slightly more Other Comment codes were recorded, proportionately, in data from interviews of support-unit heads, because frequently the first question asked in a particular category was met with a response indicating non-applicability to that unit.

Only unambiguous "Yes" responses were manipulated in statistical procedures determining the extent of "proponence" and "usage" (see definitions below and in Chapter I). However, the frequencies in all response categories for the unit-head, faculty, and advisor instruments are displayed in Chapter IV (Tables 3-5 and 7-9).

Definitions

Because the analysis of data focused primarily on two desired measures, operational definitions of those are again provided:

Proponence

This coined word signifies the abstract noun or quality expressed by affirmative responses to "Are you a proponent of this practice?" A person's proponence score is that representing the number of times he/she responded "Yes" to the "proponent" question. The proponence score for a particular practice is the quantity representing the number of respondents who are proponents of that practice.

Usage

To avoid using the word "practice" in two ways, the term usage was selected to signify the quantity expressed by the "Yes" responses to "Is this your [unit´s] practice?" A person´s or a unit´s usage score is that representing the number of times the respondent marked "Yes" to that question in the instrument. The usage score for a particular practice is that representing the number of respondents who said they use the practice.

Computer-Assisted Statistical Procedures

Data were analyzed using selected routines from *Statistical Package for the Social Sciences* (Nie *et al*., 1975) and consultation from the university´s Statistical Consulting Center. These routines were the primary ones employed:

The subprogram FREQUENCIES supplies one-way frequency distributions for discrete variables (Nie *et al*., 1975, p. 194). Frequencies for all demographic variables and response variables were obtained to enable initial characterizations of subject groups and to aid verification of data input worksheets. Frequencies of "combined" variables (*i. e.*, the patterns of Yes/Yes, Yes/No, No/Yes, No/No, and various combinations involving nontypical responses) were also obtained for use in the weighting scheme described under Data Analysis in this chapter and under Potential Responsiveness in Chapter IV.

Proportions in subgroups of such characteristics such as gender, unit affiliation, degree classification, age group, and enrollment status were obtained with the CROSSTABS routine, which provides joint frequency tables displaying column and row percentages, percentages of the total table, and, as requested, various combinations of those indicators (Nie *et al.*, p. 230).

The subprogram BREAKDOWN "calculates and prints the sums, means, standard deviations, and variances of a dependent variable among subgroups" in a file (Nie *et al.*, p. 249). The "Yes" responses to the proponence and usage questions for each instrument item were analyzed separately according to selected subgroup characteristics of each respondent group. Of special interest were the number of respondents in the various groupings, the sums of "Yes" responses, and, where appropriate, the standard deviations.

The CROSSBREAK facility, "a hybrid of the BREAKDOWN and CROSSTABS procedures" (Nie *et al.*, p. 264), provides an easily readable display of "Yes" data in percentage form, facilitating construction of tables for Chapter IV.

Each instrument item was considered in turn an independent variable, as were section subtotals and instrument totals. The subprogram ONEWAY, which is "limited to problems involving only one variable," was selected to perform analyses of variance according to selected subgroup characteristics, identifying differences significant at the .05 level. ONEWAY was chosen over the related subprogram ANOVA because it provides not only a "basic analysis of variance summary table" but also *a posteriori* contrasts and seven statistics applicable to the contrasts (Nie *et al.*, pp. 398, 422). (The difficulties arising from multiple univariate testing were recognized. See Hindsights, Appendix F.)

Because specific information was desired beyond an ANOVA indication of differences between or among subgroup means, an *a posteriori* contrast test was selected to pinpoint the subgroup or subgroups of greatest influence on those differences. The Student-Neuman-Keuls test (SNK) meets basic criteria of "comparing all possible pairs of group means," of being accurate with unequal group sizes (a common situation in the study data), and of ensuring that each comparison is made at a specific alpha level (in this study, .05) (Nie *et al*., pp. 427-428).

The SNK functions in such a fashion that the further two means are apart (for example, among school-college-faculty subgroups) on an ordered scale, "the larger the difference between them must be before this difference exceeds its critical value" (Winer, 1962, pp. 82-83). The influence of this aspect of the SNK was seen in a few comparisons in which all three subgroups in an ordered trio of means appeared to be quite different upon visual inspection. The middle and lowest scores were identified as significantly different from each other, but the highest and lowest were not so identified.

Other Statistical and Computational Procedures

Mean satisfaction scores of the local adult-student group were compared with mean scores of a national normative group. The formula selected was the one-sample *t* test described by Levy (1968, pp. 94-97).

Total proponence and usage scores of school-college-faculty subgroups within the unit-head, faculty, and advisor groups were compared to each other and to the proportions of adults enrolled in school, college, and faculty units. Pearson product-moment correlation statistics were calculated for all possible pairs of total scores (*TI-55 III Guidebook*, 1977, pp. *3*-4, *3*-10).

Under the heading Potential Responsiveness in Chapter IV, a weighting scheme is described which was applied to the summed, combined variables for each item of practice to determine the relative "climate for maintenance or adoption" of practices. Four points were tallied for each respondent who answered "Yes" in proponence and "Yes" in usage concerning an item, three points for each Yes/No, two points for each No/Yes, and one point for each No/No. These "climate scores" for all items in an instrument were averaged, and the scores falling more than one standard deviation above and below the mean defined as being in a "warm" and "cool" climate, respectively.

Content Analysis of Non-Quantifiable Data

Responses to open-ended questions were content-analyzed. Responses of unit heads, faculty, and advisors were themselves used to develop categorization schemes. The reliability of coding was assessed by employing a second coder and calculating the inter-coder reliability statistic known as "Scott´s pi" (Scott, 1955, pp. 321-325; see also Holsti, 1969). Details of the content analysis procedure are given in Chapter IV and in greater detail in Appendix E.

A categorization scheme for student responses to an open-ended question was developed partly from the responses themselves and partly from a "barriers to participation" model described by Cross (1981, pp. 97-108). Details of the process are given in Chapter IV and in Appendix E.

Selection and Display of Data

As noted earlier, quantifiable responses of unit heads, faculty, advisors, and support-service heads which are of primary interest are *proponence scores* and *usage scores*. The *percentage* equivalents of those scores were selected for display in tables designed to illustrate similarities and differences within respondent groups. Subgroup sizes are shown under subgroup names at the tops of data columns.

Students´ quantifiable responses are displayed in Chapter IV tables as *mean satisfaction scores* on a five-point scale (with five as the top extreme). Standard deviations are also shown.

Tabular notation was judged to be the most space-conserving way to denote significant differences among subgroups. But this presented a challenge: How to mark clearly which subgroups of a set differ from selected others. The following system of symbols was devised, and is used wherever subgroup scores submitted to analyses of variance and *a posteriori* contrast tests are displayed.

Rectangles and underscores. Every relationship among subgroups identified by the SNK test can be expressed in these terms: *One subgroup is significantly different from other subgroups* and can thus be placed at the left of a "greater than" or "less than" expression according to the order in which the means were listed by the ONEWAY/SNK procedure. For example, in lines of means expressed by the symbols A, B, C, D, E, and F, various relationships might have been identified by the SNK test:

(1) $A > C, D, F$ (2) $B < A, C, D, F$ (3) $F > A$

These expressions signify that (1) A´s mean is significantly different from, and higher than, the means of C, D, and F (and not significantly different from the means of B and E); (2) B´s mean is significantly different from, and lower than, the means of A, C, D, and F (but not significantly different from E´s mean); and (3) F´s mean is significantly different from, and higher than, A´s mean (but not significantly different from the means of B, C, D, and E).

In a line of tabled scores, then, the *one* *subgroup* whose relationship to others can be represented by its lone position at the left in a "greater-than" (or >) expression is marked thus:

(1)	A	B	C	D	E	F
	$\boxed{7.1}$	6.8	$\underline{3.9}$	$\underline{4.6}$	6.3	5.3

Similarly, if the one subgroup´s significantly differing score is lower than others, which would place it at the left in a "<" (less than) expression, the situation can be shown as follows:

(2)	A	B	C	D	E	F
	$\underline{6.0}$	$\boxed{1.1}$	$\underline{3.9}$	$\underline{6.1}$	1.6	$\underline{2.3}$

The *reader* has the task of determining, by visual inspection, whether one "rectangled" subgroup has a lower or higher mean than its underscored neighbors.

Where only two subgroups (such as gender subgroups) have been compared, the convention was established that the higher score is in a rectangle and the lower score is underscored.

A greater challenge arose when *more* *than* *one* *subgroup* was identified as significantly different from *one* *or* *more* *others* in the same line of scores. For these cases, a secondary set of symbols was devised: a dashed-line rectangle and dashed-line underscoring. The following example shows two scores which differ significantly from various other scores:

A	B	C	D	E	F
$\boxed{7.1}$	$\boxed{6.8}$	$\underline{\underline{3.9}}$	$\underline{\underline{4.6}}$	6.3	$\underline{5.3}$

The symbols indicate not only that A´s mean is significantly different from, and higher than, the means of C, D, and F, but also that B´s mean is significantly different from, and higher than, the means of C and D.

The final challenge was confined to a few cases in the advisor data, in which a third subgroup was singled out as differing significantly from one other subgroup in the line. Although these were considered the least important findings, comparatively, they were judged worthy of marking, not by an additional style of rectangle but by a double asterisk linked to a footnote.

Single asterisks. Occasionally an ANOVA indicated that there were significant differences among subgroups, but the SNK failed to identify the higher/lower relationships of those subgroups at the (.05) alpha level. A single asterisk refers the reader to a footnote in which that situation is explained.

CHAPTER IV

RESULTS

The study produced a large amount of data intended to answer the primary research question, How responsive is the University of Massachusetts at Amherst to adult undergraduates? Quantifiable data were coded, tallied, visually and statistically analyzed, examined at various levels of aggregation, and prepared for narrative exposition and tabular display. Non-quantifiable data (responses to open-ended questions and additional remarks) were content-analyzed and the major categories examined in text and depicted in tables.

A report of response and completion rates for participant groups follows these introductory pages. The remainder of the chapter is structured to correspond with the order of research subquestions presented in Chapter III. Where several long tables accompany a portion of text, they are grouped together at the end of that text subsection.

Most of the chapter is devoted to findings which depict the present state of the university´s responsiveness to adult undergraduates. The extent of proponence for practices which were included in survey instruments is depicted by rank-ordering the practices according to the numbers of their proponents. Similar rankings of practices follow, their order determined by numbers of users in the university.

Findings are then presented concerning proponence and usage within and across aggregations of unit heads, faculty, and academic advisors. The aggregating criteria used with all three respondent groups are their school, college, and faculty affiliations, the proportion of adults enrolled in their units, and gender. The influences of faculty rank and teaching level are considered, as are the faculty/staff role, adult-advisee load, and authority level of advisors.

Topics common to the data from these three groups are the next focus, followed by a correlational exercise which pairs total-instrument scores and the percentages of adults in organizational units. The University Without Walls, more than 90% of whose students are over 25 years of age, is compared to the academic units which enroll the next largest proportions of adults.

The report of findings then shifts to adult students and their levels of satisfaction with college services and environmental aspects. The local group is compared to a national normative group and then is disaggregated so that influences on satisfaction level of degree classification, gender, enrollment status, age group, and race can be traced.

The university's present state of responsiveness leads logically into its potential responsiveness to adult undergraduates. Proponence and usage data from unit heads, faculty, advisors, support-service heads, and heads of University Without Walls and the Division of Continuing Education are reconfigured to provide "climate" measures for maintenance or adoption of certain practices. Enhancing the climate discussion are unit-head and faculty interpretations of the mission of the university and its departments and divisions concerning service to adults, and advisors' interpretations of the purpose of their advising units concerning attention to age diversity. Suggestions from advisors and students pinpoint possible places for effective change towards increased responsiveness to adult students.

A summary of findings concludes the chapter. It serves not only as a condensation of what came before it but also as a bridge to the discussion and recommendations of Chapter V.

Response and Completion Rates

Response Rates

In all, 456 persons were asked to supply information for the study; 373 responded in some form, for an overall response rate of 81.8%. Usable information was received from 356 persons, for an effective response rate of 78.1%. Characteristics of each respondent group are described below. Rates according to respondents´ school, college, and faculty affiliation are displayed in Table 1.

Unit Heads

Fifty-three replies were received to the 62 instruments sent to department heads and chairs and division chairs and directors, an overall reponse rate of 85%. Forty-eight were in the form of usable instruments; five were written or telephoned messages declining participation. One person serving both as a department head and an acting division director was sent two instruments and asked to provide viewpoints from both roles; he did so and is thus represented twice in the findings. Department heads are underrepresented in the unit-head response data; 67% returned usable instruments, compared to 83% of department chairs and 100% of division chairs and directors.

By organizational unit, the highest rates of return of usable unit-head instruments (100%) were from the School of Education, School

Table 1
Response Rates of Unit Heads, Faculty, and Academic Advisors According to University Organizational Unit

Unit*	Unit Heads**			Faculty			Academic Advisors		
	Surveyed	Responded	Usable Instruments	Surveyed	Responded	Usable Instruments	Surveyed	Responded	Usable Instruments
CAS	--	--	--	--	--	--	9	7 (77%)	6 (67%)
HFA	16	13 (81%)	13 (81%)	30	18 (60%)	16 (53%)	18	15 (83%)	15 (83%)
NSM	10	8 (80%)	5 (50%)	24	20 (83%)	19 (79%)	4	4 (100%)	4 (100%)
SBS	7	6 (86%)	6 (86%)	20	19 (95%)	18 (90%)	2	2 (100%)	2 (100%)
EDU	3	3 (100%)	3 (100%)	8	6 (75%)	6 (75%)	4	4 (100%)	4 (100%)
ENG	5	5 (100%)	4 (80%)	12	7 (58%)	7 (58%)	2	2 (100%)	2 (100%)
FNR	10	8 (80%)	8 (80%)	18	16 (89%)	16 (89%)	7	6 (86%)	6 (86%)
HSC	3	3 (100%)	3 (100%)	6	4 (67%)	4 (67%)	2	2 (100%)	2 (100%)
MGT	4	3 (75%)	2 (50%)	7	6 (86%)	4 (57%)	2	1 (50%)	1 (50%)
PHE	3	3 (100%)	3 (100%)	2	1 (50%)	1 (50%)	1	1 (100%)	1 (100%)
OTH	--	--	--	--	--	--	7	7 (100%)	6 (86%)
Totals	62	53 (85%)	48 (77%)	127	97 (76%)	91 (72%)	58	51 (88%)	49 (84%)

*CAS: College of Arts and Sciences Information and Advising Center; HFA: Faculty of Humanities and Fine Arts (A&S); NSM: Faculty of Natural Sciences and Mathematics (A&S); SBS: Faculty of Social and Behavioral Sciences (A&S); EDU: School of Education; ENG: College of Engineering; FNR: College of Food and Natural Resources; HSC: School of Health Sciences; MGT: School of Management; PHE: School of Physical Education; OTH: Bachelor's Degree with Individual Concentration, Bilingual Collegiate Program, Collegiate Committee for the Education of Black and Other Minority Students, Division of Continuing Education, English as a Second Language Program, Everywoman's Center, Honors Program

**Department chairs and heads, division chairs and directors of Health Sciences, and the School of Health and Physical Education. Lowest return rates (50%) were from the Faculty of Natural Sciences and Mathematics and the School of Management.

Seven of the unit heads receiving instruments are female; all returned usable instruments. Proportionately fewer male unit heads, 74%, returned usable instruments.

Faculty

Ninety-seven replies were received to the 127 instruments sent to a random sample of full-time faculty holding academic rank, an overall response rate of 76%. Ninety-one were in the form of usable instruments; six were other communications: two blank instruments, three messages declining participation, and one request for a replacement instrument which was not subsequently returned.

Highest return rates were from those faculty representing the Faculty of Social and Behavioral Sciences (90%) and the College of Food and Natural Resources (89%). Lowest return rates were from faculty representing the Faculty of Humanities and Fine Arts (53%) and the School of Physical Education (50%). HFA faculty are proportionately underrepresented in the faculty data; however, those who responded account for 27% of the usable faculty data.

Male and female faculty are represented in the usable data in approximately the proportions in which they appear in the sample surveyed: 75% of 21 female faculty and 71% of 106 male faculty returned usable instruments. Representation by academic rank in the usable data is also approximately proportionate to the sample surveyed: 47% of 61 professors, 30% of 40 associate professors, and 23% of 26 assistant professors returned usable instruments. Faculty returning usable instruments categorized themselves according to teaching level as follows: undergraduate only, 11 (12.1%); undergraduate and graduate, 70 (76.9%); graduate only, 8 (8.8%); not currently teaching, 2 (2.2%).

Academic Advisors

Fifty-one replies were received to the 58 questionnaires sent to a sample of those persons who have major responsibilities for academic advising, an overall response rate of 88%. Forty-nine were in the form of usable instruments. Two were other communications: one request for a replacement instrument which was not subsequently returned and one telephone message declining participation.

In six of the 11 advising (organizational) unit categories, all advisors surveyed (100%) supplied usable instruments. The lowest return rate (50%) was from advisors representing the School of Management. MGT and CASIAC (College of Arts and Sciences Information and Advising Center) are slightly underrepresented in advisor data.

Proportionately more female (95% of 19) than male (79% of 39) advisors returned usable instruments. Representation according to faculty or staff role nearly matches that of the survey sample: 84% of 44 faculty advisors and 86% of 14 professional-staff advisors returned usable instruments. Representation according to authority level is highest, proportionately, at the highest level: 92% of advisors at the top level (1-A) returned usable instruments, compared to 83% at the 2-A level, 88% at the 3-A level, and 63% at the 3-C level. Advisors returning usable instruments categorized themselves as follows according to the proportion of adults they advise: no adults advised, 6 (12.2%); adults one-fourth of load or less, 38 (77.6%); adults one-fourth to one-half of load, 3 (6.1%); adults one-half of load or more, 2 (4.1%).

Effects of Underrepresentation

There were enough respondents from most of the proportionately underrepresented subgroups in the unit-head, faculty, and advisor data to have adequate influence on the study findings. Only in three instances does underrepresentation affect the findings or their interpretation and display. The School of Management is represented by only one respondent in the advisor data, and the School of Physical Education by one respondent in the faculty data and one in the advisor data. This means, first, that when scores for school, college, and faculty groups are tabled, MGT and PHE are omitted in order to protect confidentiality of response. Second, analyses of variance exclude one-member cells, so statistical comparisons according to school, college, and faculty are made of faculty data without PHE, and of advisor data without PHE and MGT. Third, inferences about MGT and PHE advising units or PHE faculty based on samples of one are considered too tenuous to offer in this report.

Support Units

Attempts to conduct telephone interviews with 24 heads of university support services during a three-week period were successful in all but one case, for a response rate of 96%. One prospective interviewee asked to respond in writing to written interview questions in place of an oral interview; her responses are included with the telephone interview data.

"Adult" Units

The heads and one staff member each of the Division of Continuing Education and the University Without Walls were asked to participate in the study. The heads supplied usable data. The staff members' participation in activities concerned with the adaptation of the guiding instrument is described in Chapter VI.

Adult Students

Eighty percent of the 181 students 25 years old and older to whom survey instruments were sent returned them within the allotted time period. All but two of the 145 returned instruments contained information which is represented in the study findings. Table 2 compares the makeup of the respondent groups with that of the survey groups, showing that Other Majors are slightly underrepresented in comparison to Bachelor of General Studies and University Without Walls majors. Not shown in the table is that male students are slightly underrepresented in comparison to female students. Neither case of slight underrepresentation was judged to affect the conclusions drawn from study findings.

Returns by Followup Period

The followup schedule for the mailed instruments consisted of a first followup letter sent about two weeks after the original mailing; a second letter accompanied by a replacement instrument, sent about 10 days after the first followup letter; and a telephone call about two weeks after the second followup letter. Of the 331 usable instruments received from unit heads, faculty, academic advisors, and students, 61.6% were received in the period between the initial contact and the mailing of the first followup letter; 15.7% in the period between the

Table 2
Response Rates of Adult Students (n=145)
According to Degree Classification

Degree Classification	Surveyed	Responded		Usable Instruments	
University Without Walls	85	73	(86%)	72*	(85%)
Bachelor of General Studies	7	4	(57%)	4	(57%)
Other Majors (school, college, and faculty units)	89	68	(76%)	67*	(75%)
Totals	181	145	(80%)	143	(79%)

*One UWW and one Other Majors student answered the open-ended question but did not complete the satisfaction scales.

first and second followup letters; and 19.6% in the period between the second letter and a telephone reminder. Following the telephone calls, 3.0% were received. The assumption is made that no significant bias was introduced by delays in returning instruments.

Completion Rates

The extent to which respondents completed their instruments is high. Overall, in the quantifiable components of the instruments, codable responses were provided in 96.3% of possible spaces by the 356 persons whose instruments contained usable data. Additional details about completion-rate determination and characteristics are in Appendix C.

Unit heads, faculty, advisors, heads of adult units, and students were given the opportunity to write responses to specific open-ended questions. Overall, more than 76% did so:

Table 6
Proponence of Heads of Support-Service Units, Division of
Continuing Education, and University Without Walls
for Selected Practices Effective in Serving Adult Undergraduates,
Ranked According to Percentage of "Yes" Responses

			Are you a proponent of this practice?	
Practices	n	% Yes	DCE	UWW
Coordinating some services with other campus support units which include adult students in their clientele	14*	100	Yes*	Yes*
Informing students enrolled in the University Without Walls about your support services	12	100	Yes	---
Collecting information about the adult students served by the unit, in the general category of demographic data (name, address, phone)	8	100	Yes	Yes
Implementing or planning a needs assessment which includes attention to opinions of current adult students				
about presently available programs and services	8	100	Yes	Yes
about programs and services not presently provided	8	100	Yes	Yes
Collecting information about the adult students served by the unit, in the general category of academic needs data (e.g., needs for academic support such as remedial writing, preferred class schedule, learning modes)	7	100	Yes	Yes
Including information about academic program alternatives and requirements in orientation activities which include or are available to adult students	7	100	Yes	Yes
Providing information to advisees about other sources of academic advising at UMass	6	100	Yes	Yes
Providing information to advisees about programs of personal and career counseling elsewhere on campus	6	100	Yes	Yes
Having some persons in your unit who have undergone training or done special reading pertaining to the advising of adults	6	100	Yes	Yes
Undergoing self-study in the unit to identify academic support services needed by students (including adult students)	6	100	Yes	Yes
Establishing or maintaining a newsletter or other publication which provides information of special interest to adult students	13	92	Yes	Yes
Encouraging one or more unit staff to undergo training or do special reading pertaining to services for adults	13	92	Yes	Yes
Encouraging one or more unit staff to serve on committees or advisory groups which deal with the concerns of adult students	16	88	Yes	Yes
Including attention to professional, vocational, and life plans and aspirations in orientation activities which include or are available to adult students	8	88	Yes	Yes

(continued)

Group	Topic of Open-Ended Question	Number and Percent Responding	
Unit heads	University mission	35/48	72.9%
Unit heads	Department/unit mission	38/48	79.2
Faculty	University mission	65/91	71.4
Faculty	Department/unit mission	64/91	70.3
Advisors	Advising-unit purpose	38/49	77.6
Advisors	Suggested change(s)	41/49	83.7
Adult-unit heads	University mission	1/2	50.0
Adult-unit heads	Department/unit mission	1/2	50.0
Students	Suggested change(s)	117/145	80.7

Comments in addition to responses to open-ended questions were supplied by about 21% of unit-head respondents, 31% of faculty respondents, and 41% of advisor respondents. These remarks were included in "other comment" categories for content analysis procedures.

Support (Proponence) for Effective Practices

How extensive is support within the University of Massachusetts at Amherst for practices effective in serving adult undergraduates? This research question has as its aim a measurement of favorable inclination (proponence) toward the practices described in the literature and included in survey instruments. Sought specifically is the extent of proponence of unit heads (department chairs and heads and division chairs and directors), teaching faculty, academic advisors, heads of support services, and heads of two university units established to serve adults and part-time students, the Division of Continuing Education and University Without Walls.

Proponence was earlier defined operationally as affirmative response to "Are you a proponent of this practice?" The initial report of its extent in this university is a series of lists of practices which are ranked in descending order according to the number of "Yes" responses supplied by respondents. Tables 3-5 display complete lists for unit heads, faculty, and advisors; also shown with those lists are frequencies in six categories of response: Yes, No, Rarely, Conditional Yes, Other Comment, and Blank. Table 6 shows affirmative response to 26 selected practices by support-unit heads and heads of DCE and UWW.

Unit-Head Proponence

Generally, the practices having 90% or more unit-head proponence are those considered effective with a broad range of students, traditional and nontraditional. Just below the 90% mark, as can be seen in Table 3, begin to emerge alternate delivery modes and practices which recognize the individual nature and previous experience of students. At the mid-range are practices which offer flexibility to the seeking student but which may require greater investment of time by department personnel than do more conventional practices. At the low end (less than 15% proponence) are credit-award procedures tied to specific published materials, and delivery modes involving extreme departures from traditional, campus-based programs.

Faculty Proponence

Only the practices concerning interdisciplinary teaching and independent-study supervision, neither of which is limited to adult students in effectiveness, have more than 90% of the faculty sample as proponents. High on the list displayed in Table 4, however, are practices having flexibility as a key characteristic, both in student programs and in faculty delivery methods. At the mid-range are activities outside the day-to-day university setting but within the adult-student milieu. Only one practice is at the low extreme (under 20%) of faculty proponence, teaching by correspondence study, an activity which (stereotypically, at least) involves little or no direct contact with students.

Academic Advisor Proponence

As was the case with unit heads, practices garnering 90% or more of advisor proponence are those effective with a broad range of students. As shown in Table 5, also above the 90% mark are practices denoting flexibility in both advising-unit practice and individual advisor custom. At the mid-range appears special training/reading geared to improving service to adult students. No practice drew less than 36% of advisor proponence. Those near the end of the list are much like those at the bottom of the unit-head list; they concern the use of specific published materials for determining credit award for prior learning or describe the modes of delivery least available in this university.

Proponence of Heads of "Adult" Units

The instrument sent to department and division heads was also sent to the heads of the Division of Continuing Education and University Without Walls, along with an extensive series of items selected from questions posed in interviews of heads of support-service units. Responses from the UWW unit head indicate proponence for all except the last three of the 47 practices listed in Table 6. The exceptions are offering one or more traditional, on-campus courses through correspondence study; offering an entire program through correspondence study;

and offering an entire program through independent study. The DCE unit head did not respond to the unit-head instrument portion of the survey. DCE/UWW proponence for support-service practices is described and tabled with the support-service material.

Proponence of Support-Service Heads

The 26 practices to which six or more support-service heads, plus DCE and UWW heads, gave Yes or No responses are listed in Table 6 in descending order according to the percentage of support-service heads who answered "Yes" to "Are you a proponent of this practice?" Where the same percentage figure applies to more than one practice, those practices are tabled, first, by the number of persons responding, and second, in the order in which the questions were selected from the Guide.

Generalizing about the kinds of practices appearing at the top, mid-point, and bottom of the support-unit proponence list is more difficult than it was for the proponence of unit heads, faculty, and advisors. Appearing throughout Table 6 are practices usable with a broad age range of students as well as practices focused more narrowly on the adult student component. Even practices which may require greater time, effort, and perhaps resources than do more routine activities are found at all points: near the top (needs assessment), at midrange (information-gathering), and near the bottom (after-hours opening of in-house resource centers).

Corresponding lists reflecting usage of practices will be found in the following section.

Table 3
Proponence of Unit Heads (n=48) for Practices Effective in Serving Adult Undergraduates, Ranked According to Number of "Yes" Responses

Practices Listed in Instrument	Are you a proponent of this practice?					
	Yes	No	Rarely	Conditional Yes	Other Comment	Blank
Making academic advising available within the department for students who seek it	48					
Designing departmental brochures to describe programs so that students can understand the overall structure of a program	47			1		
Customarily accepting credit value equal to that of traditional departmental courses for transfer credits representing courses taken in the regular day programs of other collegiate institutions	47			1		
Maintaining a good referral network with academic advising programs elsewhere on campus	47	1				
Monitoring student progress in the department for planning purposes or for identifying students in academic difficulty	47					1
Making available in the department Honors or other accelerated or advanced placement courses or learning experiences for exceptionally well qualified students	45	3				
Having readily available information on student retention rates in the department	44	2			2	
Maintaining a good referral network with remedial programs elsewhere on campus	44	4				
Holding some organized faculty discussion in the department about what students completing the program are able to do and understand (as contrasted with how many courses they have completed)	44	4				
Collecting information about the reasons students drop out of the department	43	2		1	2	
Offering courses through the Division of Continuing Education	41	5			2	
Customarily accepting credit value equal to that of traditional departmental courses for credits awarded for courses taken through this University's Division of Continuing Education	41	5		1		1
Scheduling some course sections to meet less often and for longer time periods (than the twice or thrice weekly format), for the convenience of students	39	8			1	
Scheduling some sections of courses in evenings or on weekends	39	8			1	
Making some effort, formal or informal, to attract adult students	38	8			1	1
Offering one or more of the department's traditional, on-campus courses through independent study...	37	11				

(continued)

Table 3, continued

	Are you a proponent of this practice?					
	Yes	No	Rarely	Conditional Yes	Other Comment	Blank
Designing departmental brochures to reflect a desire to have age diversity among undergraduates	37	8			3	
Customarily accepting credit value equal to that of traditional departmental courses for credits awarded for courses taken in the continuing education programs of other collegiate institutions	37	9		1		1
Allowing students to develop individualized courses of study which meet the requirements of some programs in the department	36	10		2		
Maintaining a peer assistance program for students (including adult students) in academic difficulty	36	10			1	1
Addressing, as part of or in addition to the department's on-going faculty discussions, the topic of student learning styles	36	9			2	1
Allowing students to apply credit towards program requirements in the department by successful examination via special examinations administered by the department	33	14			1	
Offering one or more of the department's traditional, on-campus courses						
through radio, telecommunications, computer-assisted or other mediated format	32	12		1	3	
at off-campus locations	31	14		2	1	
Making it possible for students to accomplish requirements for some programs in the department after 4 p.m. or on weekends	27	14			4	3
Offering remedial courses or programs for improvement of basic knowledge or skills	27	21				
Sponsoring or participating in a workshop or other learning experience for staff members who routinely work with students, to help them understand the needs of adult students and their possible role in meeting those needs	27	18			1	2
Offering advising, a workshop, or other assistance to students in developing portfolios or other appropriate documentation for evaluating such learning [college-level learning acquired outside a higher education institution]	26	18			2	2
Making advising, if offered in the department, available in evenings or on weekends	26	17		3	1	1
Making it possible for some part-time students to accomplish requirements for some programs within the usual 10-semester limit	25	10			7	6
Making remedial courses or programs, if offered by the department,						
available in evenings or on weekends	22	19			4	3
available in computer-assisted or other media format	22	18			4	4

(continued)

Table 3, continued

	Are you a proponent of this practice?					
	Yes	No	Rarely	Conditional Yes	Other Comment	Blank
Awarding credit toward degrees for demonstrable, college-level learning acquired outside a higher education institution, other than that described in questions 2 [credit by examination] and 3 [credit by equivalency]	20	23			2	3
Allowing students to apply credit towards program requirements in the department by successful examination via						
Educational Testing Service's College-Level Examination Program (CLEP)	18	21			7	2
College Entrance Examination Board's Advanced Placement Program (CEEB/AP)	18	20			7	3
Making advising, if offered in the department, available off campus	17	27		2		2
Recognizing, through the faculty reward system, effort specifically aimed toward teaching (or otherwise serving) adult students	17	28			3	
Making remedial courses or programs, if offered by the department, available off campus	15	26			4	3
Offering an entire program in the department at off-campus locations	11	34		2	1	
Allowing students to apply credit towards program requirements in the department by successful examination via American College Testing's Proficiency Examination Program (PEP)	11	22			12	3
Offering an entire program in the department through radio, telecommunications, computer-assisted or other mediated format	9	35			3	1
Allowing students to apply credit towards a degree program in the department through the equivalency procedures of						
National Guide to the Evaluation of Education Experiences in the Armed Forces (American Council on Education)	7	24		1	12	4
National Guide to Educational Credit for Training Programs (American Council on Education)	7	24		1	12	4
New York Regents' *Guide to Educational Programs in Non-Collegiate Organizations*...	7	24		1	12	4
Offering one or more of the department's traditional, on-campus courses through correspondence study...	5	43				
Offering an entire program in the department						
through correspondence study	2	46				
through independent study	2	45			1	

Table 4
Proponence of Faculty (n=91) for Practices Effective in Serving Adult Undergraduates, Ranked According to Number of "Yes" Responses

Practices Listed in Instrument	Are you a proponent of this practice?					
	Yes	No	Rarely	Conditional Yes	Other Comment	Blank
Teaching an interdisciplinary course (alone or as part of a team)	85	6				
Supervising an independent study course	84	4		2	1	
Helping adult students plan individualized majors or program components where appropriate and feasible	82	9				
Advising students about possible course substitutions, special examinations administered by departments, and/or other ways of making the curriculum more flexible	81	9				1
Teaching a course offered through the Division of Continuing Education which was initiated by your or your department	80	9				1
Teaching a course with an experiential learning component (such as field experience, internship, practicum, studio work, cooperative arrangement)	78	12			1	
Teaching a regular departmental course outside traditional, weekday, daylight-hour time periods	77	12			1	1
Varying your mode of delivery (for example, lecture, discussion, peer teaching, hands-on work) according to the evidence you see of various learning preferences in a class	76	10		1	2	2
Teaching a course which allows student to develop an individualized learning contract or pursue a special topic of his/her choice	75	14			1	1
Teaching a course offered through the Division of Continuing Education which was initiated by student demand through Continuing Education (i.e., a "response" course)	74	14			1	2
Designing or revising one or more courses in ways which allow you to vary your role (for example, from subject-matter specialist to resource person to mentor), depending on the needs of a particular student group	74	13			1	3
Serving as a sponsor, evaluator, or independent-study supervisor for one or more University Without Walls students	73	16			1	1
Designing or revising one or more courses in ways which allow you to vary the amount of structure you provide (e.g., organization of material, number of guidelines and requirements), depending on the needs of a particular class	73	15			1	2
When deciding how to respond to an adult student seeking your permission to enroll in one of your courses, giving positive consideration to his/her experience	72	10			3	6

(continued)

Table 4, continued

	Are you a proponent of this practice?					
	Yes	No	Rarely	Conditional Yes	Other Comment	Blank
Teaching, advising, or otherwise working with adult students in credit or non-credit settings outside the university, in governmental agencies	68	16				7
Participating in a local workshop, seminar, or other organized discussion designed to broaden faculty knowledge about [how college students learn, learning needs/preferences of adult college students, assessment of student outcomes]	65	23				2
Teaching, advising, or otherwise working with adult students in credit or non-credit settings outside the university, in human service agencies	65	18				8
Participating, during a professional conference at the national or regional level, in a session focused on, or including information about, how college students in general learn	64	25				2
Teaching, advising, or otherwise working with adult students in credit or non-credit settings outside the university, in business or industry	64	20				7
Participating, during a professional conference at the national or regional level, in a session focused on, or including information about, learning needs and preferences of adult college students in particular	63	25				3
Being available for advising appointments outside weekday, daytime hours	61	24		3	2	1
Teaching, advising, or otherwise working with adult students in credit or non-credit settings outside the university, in continuing education units of other colleges or universities	61	23				7
Teaching a course at an off-campus location	59	26		5	1	
Undertaking special reading about adult college students	58	29				4
Teaching a competency-based course (*i.e.*, one having specific, stated learning outcomes other than already covered in Question 7)	56	22			8	5
Helping a student develop a portfolio documenting college-level learning acquired in settings other than higher education institutions	56	30			3	2
Designing or revising one or more courses in ways which build on or incorporate life experiences of students	56	30		2	2	1
Participating, during a professional conference at the national or regional level, in a session focused on, or including information about, assessment of student outcomes	56	28			3	4
Leading national, regional, or local efforts related to adult learning or adult learners (this category can include staff training for University employees)	54	32				5

(continued)

Table 4, continued

	Are you a proponent of this practice?					
	Yes	No	Rarely	Conditional Yes	Other Comment	Blank
Teaching, advising, or otherwise working with adult students in credit or non-credit settings outside the university, in other groups or agencies [than listed in 1a through 1d]	54	23		1	4	5
Undertaking research or service activities which have adult students as a focus	54	26			1	10
When deciding how to respond to an adult student seeking your permission to enroll in one of your courses, giving positive consideration to his/her age	52	29		1	6	3
Advising students at off-campus locations	48	36		2	3	2
Teaching a course through correspondence study	17	69		4	1	

Table 5
Proponence of Academic Advisors (n=49) for Practices Effective in Serving Adult Undergraduates, Ranked According to Number of "Yes" Responses

Practices Listed in Instrument	Are you a proponent of this practice?					
	Yes	No	Rarely	Conditional Yes	Other Comment	Blank
Providing information to advisees about programs of personal and career counseling available elsewhere on campus	49					
Collecting information about the unit's advisees in the general category of demographic data (name, address, telephone)	49					
Providing information to advisees about other sources of academic advising at UMass	48	1				
Collecting information about the unit's advisees in the general categories of						
student descriptive data [*e.g.*, average number of credits per term, class status..., status at time of enrollment, full- or part-time status, degree objective, nondegree objective]	48	1				
data on previous learning experience [*e.g.*, transfer credit, credit by examination, credit by equivalency, and credit via portfolio development]	48	1				
student progress data [*e.g.*, grade point average, time required to complete degree, dropout (no return) status, stopout (drop out and return) status]	47	2				
Advising students, where appropriate, about possible modes of instruction which are alternatives to campus-based courses and programs, such as interdisciplinary courses	46	1			2	
*Advising students about possible course substitutions, special examinations administered by departments..., or other methods of making the University curriculum more flexible	46	2				1
*Encouraging and helping students to plan individualized majors or program components where appropriate and feasible	45	4				
Designing the academic advising program to consider the age, experience, needs, and interests of adult students (in addition to, or along with, those of traditional-age students)	44	4			1	
Advising students, where appropriate, about possible modes of instruction which are alternatives to campus-based courses and programs, such as						
independent study	44	4			1	
courses offered through the Division of Continuing Education	43	4			2	
courses containing experiential-learning components (such as field experiences, internships, practica, studio work, cooperative arrangements, etc.)	42	6			1	

(continued)

Table 5, continued

	Are you a proponent of this practice?					
	Yes	No	Rarely	Conditional Yes	Other Comment	Blank
Advising students, where appropriate, about the possibility of earning credit by examination through						
special examinations administered by departments	42	6			1	
College Entrance Examination Board's Advanced Placement Program (CEEB/AP)	41	5			3	
Educational Testing Service's College-Level Entrance Examination Program (CLEP)	40	7			2	
Advising students, where appropriate, about possible modes of instruction which are alternatives to campus-based courses and programs, such as						
off-campus programs	40	6			3	
courses offered by University Without Walls	40	6		1	1	1
*Participating in a workshop or other formal learniing experience designed to broaden academic advisors' knowledge of adult learning or adult learners	40	9				
Collecting information about the unit's advisees in the general category of academic needs data [e.g., needs for academic support (such as remedial writing), preferred class schedule, preferred learning modes (lecture, independent study, field experiences)]	37	10			1	1
*Undertaking special reading about adult college students	34	12		1	1	1
Making some part of the academic advising program available in evenings or on weekends	33	12		4		
Having some persons in your advising unit who have undergone training or done special reading pertaining to the advising of adults (i.e., in assessing academic needs and planning programs in light of adult life experience and situations)	32	16			1	
*Taking a leadership role in encouraging or causing other advisors to broaden their knowledge of adult learning or adult learners	32	15				2
Advising students, where appropriate, about the possibility of earning credit by examination through American College Testing's Proficiency Examination (PEP)	30	12			7	
Collecting information about the unit's advisees in the general category of personal needs data [e.g., use of support services, vocational or career choice, child care use or needs, financial needs, and other personal needs]	29	10			1	1
Using computer-assisted academic advising, such as SIGI, DISCOVER, or other similar software, for adult students	25	15			9	

(continued)

Table 5, continued

	Are you a proponent of this practice?					
	Yes	No	Rarely	Conditional Yes	Other Comment	Blank
Advising students, where appropriate, about possible modes of instruction which are alternatives to campus-based courses and programs, such as courses available through radio, telecommunications, computerized or other mediated format	25	21			2	1
Collecting information about the unit's advisees in the general category of socioeconomic data [*e.g.*., age, gender, ethnic background, marital status, number of dependent children, income]	23	25			1	
Advising adult students about the possibility of earning credit through the equivalency procedures of						
National Guide to Educational Credit for Training Programs (American Council on Education)	22	16			10	1
National Guide to the Evaluation of Education Experiences in the Armed Forces (American Council on Education)	21	18			9	1
New York Regents' *Guide to Educational Programs in Noncollegiate Organizations*...	21	17		1	9	1
Making some part of the academic advising program available at off-campus locations	19	26		2		2
Collecting information about the unit's advisees in the general category of other situational data [than that listed in 1-7], such as employer name and address	19	26		1		3
Advising students, where appropriate, about possible modes of instruction which are alternatives to campus-based courses and programs, such as correspondence study	18	27		1	2	1

Table 6, continued

Are you a proponent of this practice?

Practices	n	% Yes	DCE	UWW
Establishing or maintaining a mechanism for gathering information from adult students to identify needed campus services	15	87	Yes	Yes
Coordinating some services with the Division of Continuing Education	14	86	---	Yes
Informing students enrolled in continuing education programs about your support services	14	86	---	Yes
Collecting information about the adult students served by the unit, in the general categories of				
socioeconomic data [*e.g.*, age, gender, ethnic background, marital status, number of dependent children, income]	7	86	Yes	Yes
personal needs data [*e.g.*, use of support services, vocational or career choice, child care use or needs, financial needs, other personal needs]	6	83	No	Yes
Keeping appropriate records concerning adult students who have graduated	6	83	Yes	Yes
Including information about student services in orientation activities which include or are available to adult students	6	83	Yes	Yes
Coordinating some services with University Without Walls	13	77	Yes	---
Opening non-library learning resource centers in evenings and on weekends	9	56	Yes	Yes
Exploring the possibility of creating an office for directing and/or coordinating programs and services for adult students	14	50	Yes	Yes
Instituting or maintaining a peer assistance program for students (including adult students) in academic difficulty	6	50	Yes	Yes

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*Units contributed Yes/No-codable responses to the 26 items as follows: DCE, 24; UWW, 24; Everywoman's Center, 24; Center for Counseling and Academic Development, 21; Handicapped Student Affairs, 16; Office of the Registrar, 16; Communication Skills Center, 15; New Students Program, 15; Student Affairs Research and Evaluation Office, 14; University Placement Services, 13; Student Activities, 13; Undergraduate Admissions, 12; University Internship Program, 12; Collegiate Committee for the Education of Black and Other Minority Students, 11; Financial Aid Office, 10; Commuter Area Government, 10; Office for Cooperative Education, 10; Bilingual Collegiate Program, 9; Student Government Association, 7; Child Care Services, 6; Campus Parking, 5; Admissions/Transfer Affairs, 3; University Housing Services, 3; University Library, 3; University Mental Health Services, 0; Veterans' Assistance and Counseling Services, 0 (not interviewed).

Usage of Effective Practices

Which practices effective in serving adult undergraduates are used in the University of Massachusetts at Amherst? Paralleling the preceding query, this research question has as its aim an understanding of practices which are already part of normal university activity. It specifically seeks the extent of usage of a set of practices, drawn from the literature and included in survey instruments, in departments and divisions, as reported by the heads of those units; by individual teaching faculty; in academic advising units and by individual academic advisors; in support units; and in university units established to serve adults and part-time students, the Division of Continuing Education and the Univerity Without Walls.

Usage has earlier been defined operationally as the in-place, normal status of a particular practice, as determined by affirmative response to "Is this your department´s practice?" (unit heads); "Is this your practice?" (faculty and academic advisors); "Is this your advising unit´s practice?" (academic advisors); or "Is this your unit´s practice?" (support service heads, heads of DCE and UWW). (Faculty were asked some additional usage-type questions about rewards and developmental approaches.)

The initial report of the extent of usage in this university is a listing of practices ranked in descending order according to the number of "Yes" responses. Tables 7-9 display complete lists for unit heads, faculty, and advisors; also shown with those lists are frequencies in six categories of response: Yes, No, Rarely, Conditional Yes, Other Comment, and Blank. Table 10 shows affirmative response to 26 selected practices by support-unit heads and heads of DCE and UWW.

If histograms were created from the unit head, faculty, and advisor lists, bars at each extreme would be short; that is, few practices are either universally used or universally unused on this campus. Generally, usage frequencies fall far below the corresponding proponence measures; comparisons of the two kinds of indicators constitute much of the rest of the chapter.

Usage in Departments and Divisions

Eleven of the 47 practices are used in half or more of the reporting academic units. As shown at the top of Table 7, only two practices are used in more than 90% of departments and divisions: making academic advising available and granting equal status to other colleges' day-course credits. Both are traditional practices which serve a wide age range of students. At the mid-range in usage are some flexible scheduling practices. At the 20% usage point and below are found nearly half of the practices in the list. Three have no reported usage: offering either single courses or entire programs via correspondence study, and sponsoring or participating in staff workshops about serving adult students.

Faculty Usage

Table 8 contains the 34 practices in the faculty instrument about which both "proponent" and "practice" questions were asked. Table 8a displays usage-only questions about recognition for working with adult students and the optional questions about use of developmental approaches to instruction.

In widest usage is supervision of independent study courses, acknowledged by 80% of respondents. Only nine other practices fall above the 50% mark; all deal with flexibility of response to individual students and to class heterogeneity. Most of the practices involving external agencies or professional development activities are at the 20% mark or below. At the bottom of the list are correspondence-course teaching and in-house recognition for working with adult students.

Usage in Academic Advising Units and by Individual Advisors

Individual-advisor practices as well as advising-unit practices are included in Table 9; the former are starred for ready identification. Networking practices are used in almost all reporting units, while basic data-gathering practices appear just below the 90% usage mark. An unanticipated gap appears at the mid-point, such that half the 35 practices are well above 50% usage and half below 37% usage. Professional development activities related to serving adults are in the bottom half, as is collection of student information of a more personal (and less "academic") nature. At the very bottom are practices which require special equipment for implementation: computer-assisted advising and technology-based course delivery formats.

Usage in "Adult" Units

As indicated earlier, the instrument sent to department and division heads was also sent to the heads of the Division of Continuing Education and University Without Walls. Responses from the UWW unit head indicate that all but six of the 47 practices listed in Table are in use in UWW. The exceptions are practices used rarely if at all elsewhere in the university: offering one or more traditional, on-campus courses through correspondence study or through radio, telecommunications, computer-assisted or other mediated format; offering an entire program through correspondence study, independent study, or mediated format; and collecting information about the reasons students drop out of the department. The DCE unit head did not respond to the unit-head instrument portion of the survey.

Usage in Support-Services Units

Usage of the 26 practices to which six or more support-service heads, plus DCE and UWW heads, gave Yes or No responses are listed in Table 10 in descending order according to the percentage of support-service heads who answered "Yes" to "Is this your unit´s practice?" Where the same percentage figure applies to more than one practice, those practices are arranged, first, by the number of persons responding, and second, in the order in which the questions were selected from the Guide.

Generalizing about the kinds of practices grouped at the top, midpoint, and bottom of support-unit usage is no easier than it was for proponence of support-unit heads. However, nearly all the practices in the top half of Table 10 are intra-unit practices. Practices which involve networking with other units or maintaining frequent and two-way contact with adult clientele do not appear until the midpoint or below in the list. Understandably, DCE, whose staff is several times the size of UWW´s and of many support-unit staffs, reports usage of all but the gathering of personal-needs data.

Table 7
Usage in Departments and Divisions (n=48) of Practices Effective in Serving Adult Undergraduates, Ranked According to Number of "Yes" Responses

	Is this your department´s practice?					
Practices Listed in Instrument	Yes	No	Rarely	Conditional Yes	Other Comment	Blank
Making academic advising available within the department for students who seek it	47	1				
Customarily accepting credit value equal to that of traditional departmental courses for transfer credits representing courses taken in the regular day programs of other collegiate institutions	46					2
Offering courses through the Division of Continuing Education	42	6				
Customarily accepting credit value equal to that of traditional departmental courses for						
credits awarded for courses taken through this University´s Division of Continuing Education	38	5			3	2
transfer credits representing courses taken in the continuing education programs of other collegiate institutions	38	7		1		2
Designing departmental brochures to describe programs so that students can understand the overall structure of a program	37	11				
Monitoring student progress in the department for planning purposes or for identifying students in academic difficulty	37	10				1
Making available in the department Honors or other accelerated or advanced placement courses or learning experiences for exceptionally well qualified students	36	11	1			
Maintaining a good referral network with academic advising programs elsewhere on campus	34	12			2	
Offering one or more of the department´s traditional, on-campus courses through independent study	30	17	1			
Scheduling some course sections to meet less often and for longer time periods (than the twice or thrice weekly format), for the convenience of students	30	17		1		
Holding some organized faculty discussion in the department about what students completing the program are able to do and understand (as contrasted with how many courses they have completed)	25	23				
Scheduling some sections of courses in evenings or on weekends	24	23	1			
Allowing students to apply credit towards program requirements in the department by successful examination via special examinations administered by the department	21	26	1			

(continued)

Table 7, continued

	Is this your department's practice?					
	Yes	No	Rarely	Conditional Yes	Other Comment	Blank
Maintaining a good referral network with remedial programs elsewhere on campus	20	27			1	
Allowing students to develop individualized courses of study which meet the requirements of some programs in the department	19	29				
Having readily available information on student retention rates in the department	15	31			1	1
Making it possible for students to accomplish requirements for some programs in the department after 4 p.m. or on weekends	13	33			1	1
Making some effort, formal or informal, to attract adult students	13	33			1	1
Allowing students to apply credit towards program requirements in the department by successful examination via Educational Testing Service's College-Level Examination Program (CLEP)	13	28			1	6
Addressing, as part of or in addition to the department's ongoing faculty discussions, the topic of student learning styles	13	34				1
Allowing students to apply credit towards program requirements via successful examination via College Entrance Examination Board's Advanced Placement Program (CEEB/AP)	12	27			1	8
Making advising, if offered in the department, available in evenings or on weekends	12	36				
Collecting information about the reasons students drop out of the department	12	33	1		1	1
Offering one or more of the department's traditional, on-campus courses at off-campus locations	11	35	2			
Awarding credit toward degrees for demonstrable, college-level learning acquired outside a higgher education institution, other than that described in questions 2 [credit by examination] and 3 [credit by equivalency]	11	34			1	2
Making it possible for some part-time students to accomplish requirements for some programs within the usual 10-semester limit	10	27			1	10
Offering advising, a workshop, or other assistance to students in developing portfolios or other appropriate documentation for evaluating such learning [college-level learning acquired outside a higher education institution]	10	34			2	2
Offering remedial courses or programs for improvement of basic knowledge or skills	10	38				
Designing departmental brochures to reflect a desire to have age diversity among undergraduates	9	36			1	2
Making advising, if offered in the department, available off campus	9	39				

(continued)

Table 7, continued

	Is this your department's practice?					
	Yes	No	Rarely	Conditional Yes	Other Comment	Blank
Allowing students to apply credit towards program requirements in the department by successful examination via American College Testing's Proficiency Examination Program (PEP)	7	30			1	10
Offering an entire program in the department at off-campus locations	6	41				1
Maintaining a peer assistance program for students (including adult students) in academic difficulty	6	39			2	1
Offering one or more of the department's traditional, on-campus courses through radio, telecommunications, computer-assisted or other mediated format	5	42			1	
Making remedial courses or programs, if offered by the department,						
available in evenings or on weekends	5	38			1	4
available in computer-assisted or other media format	5	36			1	6
Offering an entire program in the department through radio, telecommunications, computer-assisted or other mediated format	3	43				2
Recognizing, through the faculty reward system, effort specifically aimed toward teaching (or otherwise serving) adult students	3	44			1	
Offering an entire program in the department through independent study	1	46				1
Allowing students to apply credit towards a degree program in the department through the equivalency procedures of						
National Guide to the Evaluation of Education Experiences in the Armed Forces (American Council on Education)	1	35			2	10
National Guide to Educational Credit for Training Programs (American Council on Education)	1	35			2	10
New York Regents' *Guide to Educational Programs in Noncollegiate Organizations*...	1	36			1	10
Making remedial courses or programs, if offered by the department, available off campus	1	41	1		1	4
Offering one or more of the department's traditional, on-campus courses through correspondence study		44	1			3
Offering an entire program in the department through correspondence study		47				1
Sponsoring or participating in a workshop or other learning experience for staff members who routinely work with students, to help them understand the needs of adult students and their possible role in meeting those needs		46				2

Table 8
Usage by Faculty (n=91) of Practices Effective in Serving Adult Undergraduates, Ranked According to Number of "Yes" Responses

	Is this your practice?					
Practices Listed in Instrument	Yes	No	Rarely	Conditional Yes	Other Comment	Blank
Supervising an independent study course	72	17		1		1
Advising students about possible course substitutions, special examinations administered by departments, and/or other ways of making the curriculum more flexible	66	22				3
When deciding how to respond to an adult student seeking your permission to enroll in one of your courses, giving positive consideration to his/her experience	64	16			2	9
Varying your mode of delivery (for example, lecture, discussion, peer teaching, hands-on work) according to the evidence you see of various learning preferences in a particular class	64	22		1	2	2
Designing or revising one or more courses in ways which						
allow you to vary your role (for example, from subject-matter specialist to resource person to mentor), depending on the needs of a particular student group	62	24		1	1	3
allow you to vary the amount of structure you provide (*e.g.*, organization of material, number of guidelines and requirements), depending on the needs of a particular class	59	29			1	2
Teaching a course which allows a student to develop an individualized learning contract or pursue a special topic of his/her choice	52	38				1
Teaching a course with an experiential learning component (such as field experience, internship, practicum, studio work, cooperative arrangement)	50	39			1	1
When deciding how to respond to an adult student seeking your permission to enroll in one of your courses, giving positive consideration to his/her age	48	31		1	4	7
Being available for advising appointments outside weekday, daytime hours	47	39				5
Helping adult students plan individualized majors or program components where appropriate and feasible	43	42	1		1	4
Teaching an interdisciplinary course (alone or as part of a team)	42	47			1	1
Serving as a sponsor, evaluator, or independent-study supervisor for one or more University Without Walls students	34	54				3
Designing or revising one or more courses in ways which build on or incorporate life experiences of students	33	52			2	4

(continued)

Table 8, continued

	Is this your practice?					
	Yes	No	Rarely	Conditional Yes	Other Comment	Blank
Teaching a regular, departmental course outside traditional weekday, daylight-hour time periods	32	58				1
Teaching a competency-based course (i.e., one having specific, stated learnng outcomes other than any already covered in Question 7)	23	57			5	6
Teaching a course offered through the Division of Continuing Education which was initiated by your or your department	22	65	1			3
Helping a student develop a portfolio documenting college-level learning acquired in settings other than higher education institutions	22	62			3	4
Advising students at off-campus locations	22	65				4
Teaching, advising, or otherwise working with adult students in credit or non-credit settings outside the university, in						
business or industry	22	63				6
governmental agencies	22	63				6
Participating, during a professional conference at the national or regional level, in a session focused on, or including information about, how college students in general learn	18	70				3
Participating in a local workshop, seminar, or other organized discussion designed to broaden faculty knowledge about [how college students learn, learning needs/preferences of adult college students, assessment of student outcomes]	18	68		2		3
Teaching, advising, or otherwise working with adult students in credit or non-credit settings outside the university in other groups or agencies [than those listed in 1a-1d]	16	61			1	13
Teaching a course at an off-campus location	15	72		2	1	1
Participating, during a professional conference at the national or regional level, in a session focused on, or including information about, assessment of student outcomes	15	70				6
Teaching, advising, or otherwise working with adult students in credit or non-credit settings outside the university, in human service agencies	15	70				6
Undertaking research or service activities which have adult students as a focus	12	69				10
Undertaking special reading about adult college students	11	74	1			5
Teaching a course offered through the Division of Continuing Education which was initiated by student demand through Continuing Education (i.e., a "response" course)	8	79				4

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(continued)

Table 8, continued

	Is this your practice?					
	Yes	No	Rarely	Conditional Yes	Other Comment	Blank
Participating, during a professional conference at the national or regional level, in a session focused on, or including information about, learning needs and preferences of adult college students in particular	8	80				3
Teaching, advising, or otherwise working with adult students in credit or non-credit settings outside the university, in continuing education units of other colleges or universities	8	76	1			6
Leading national, regional, or local efforts related to adult learning or adult learners (this category can include staff training for University employees)	7	79			1	4
Teaching a course through correspondence study	1	86			2	2

Table 8a
"Usage-Only" Questions Asked of Faculty, Ranked According to Number of "Yes" Responses and Including Proportion of Blanks (Failures to Respond)

	Response Categories					
	Yes	No	Rarely	Conditional Yes	Other Comment	Blank
Have you designed or revised a course in the last five years in ways which challenge students to higher stages of cognitive development? [Optional question]	27	6			10	48
If you have taught or otherwise served adult students in the past five years, have you mentioned such activity in your annual faculty report?	25	48			7	11
Have you designed or revised a course in the last five years in ways which						
encourage students to move from sole reliance on external evaluation to development of internal evaluation of their efforts?	21	12			10	48
respond to various learning styles in a class?	19	14			10	48
respond to needs of many adult students for current application of subject matter? [Optional questions]	19	15			9	48
Have you designed or revised a course in the last five years in ways which challenge students to higher stages of moral/ethical development? [Optional question]	16	17			10	48
Have you designed or revised a course in the last five years in ways which challenge students to higher stages of ego/personality development? [Optional question]	13	19			11	48
If you have taught or otherwise served adult students in the past five years, have you received recognition from sources outside the University for such activity?	10	63		1	5	12
If you have taught or otherwise served adult students in the past five years, have you received recognition (of any kind) for such activity via the faculty reward system in your department or other academic unit?	4	66			7	14

Table 9
Usage in Advising Units and by *Individual Advisors (n=49) of Practices Effective in Serving Adult Undergraduates, Ranked According to Number of "Yes" Responses

Practices Listed in Instrument	Is this your advising unit´s practice? *Is this your practice?					
	Yes	No	Rarely	Conditional Yes	Other Comment	Blank
Providing information to advisees about other sources of academic advising at UMass	49					
Providing information to advisees about programs of personal and career counseling available elsewhere on campus	48	1				
Advising students, where appropriate, about possible modes of instruction which are alternatives to campus-based courses and programs, such as independent study	44	4			1	
Collecting information about the unit´s advisees in the general categories of						
demographic data (name, address, telephone)	44	5				
student descriptive data [e.g., average number of credits per term, class status..., status at time of enrollment, full- or part-time status, degree objective, nondegree objective]	44	4			1	
*Advising students about possible course substitutions, special examinations administered by departments..., or other methods of making the University curriculum more flexible	44	3				2
Collecting information about the unit´s advisees in the general category of data on previous learning experience [e.g., transfer credit, credit by examination, credit by equivalency, and credit via portfolio development]	43	5				1
*Encouraging and helping students to plan individualized majors or program components where appropriate and feasible	43	5				1
Advising students, where appropriate, about possible modes of instruction which are alternatives to campus-based courses and programs, such as						
courses offered through the Division of Continuing Education	42	5			2	
interdisciplinary courses	42	5			1	1
Collecting information about the unit´s advisees in the general category of student progress data [e.g., grade point average, time required to complete degree, dropout (no return) status, stopout (drop out and return) status]	42	6				1
Advising students, where appropriate, about possible modes of instruction which are alternatives to campus-based courses and programs, such as courses containing experiential-learning components (such as field experiences, internships, practica, studio work, cooperative arrangements, etc.)	40	8			1	

(continued)

Table 9, continued

	Is this your advising unit´s practice? *Is this your practice?					
	Yes	No	Rarely	Conditional Yes	Other Comment	Blank
Designing the academic advising program to consider the age, experience, needs, and interests of adult students (in addition to, or along with, those of traditional-age students)	38	11				
Advising students, where appropriate, about the possibility of earning credit by examination through Educational Testing Service´s College-Level Entrance Examination Program (CLEP)	34	13			1	1
Advising students, where appropriate, about possible modes of instruction which are alternatives to campus-based courses and programs, such as off-campus programs	34	11		1	2	1
Advising students, where appropriate, about the possibility of earning credit by examination through special examinations administered by departments	33	15			1	
Advising students, where appropriate, about possible modes of instruction which are alternatives to campus-based courses and programs, such as courses offered by University Without Walls	33	13		1	1	1
Collecting data about the unit´s advisees in the general category of academic needs data [e.g.., needs for academic support (such as remedial writing), preferred class schedule, preferred learning modes (lecture, independent study, field experiences)]	33	15				1
Advising students, where appropriate, about the possibility of earning credit by examination through College Entrance Examination Board´s Advanced Placement Program (CEEB/AP)	28	18			1	2
Collecting information about the unit´s advisees in the general categories of						
personal needs data [e.g.., use of support services, vocational or career choice, child care use or needs, financial needs, and other personal needs]	18	29			1	1
socioeconomic data [e.g.., age, gender, ethnic background, marital status, number of dependent children, income]	17	32				
Advising students, where appropriate, about the possibility of earning credit by examination through American College Testing´s Proficiency Examination (PEP)	14	28			3	4
Having some persons in your advising unit who have undergone training or done special reading pertaining to the advising of adults (i.e., in assessing academic needs and planning programs in light of adult life experience and situations)	13	35			1	
Advising students, where appropriate, about possible modes of instruction which are alternatives to campus-based courses and programs, such as correspondence study	13	34			1	1
*Undertaking special reading about adult college students	13	33			1	2

(continued)

Table 9, continued

	Is this your advising unit's practice? *Is this your practice?					
	Yes	No	Rarely	Conditional Yes	Other Comment	Blank
Advising adult students about the possibility of earning credit through the equivalency procedures of *National Guide to the Evaluation of Education Experiences in the Armed Forces* (American Council on Education)	12	29			3	5
Making some part of the academic advising program available in evenings or on weekends	11	37		1		
Collecting information about the unit's advisees in the general category of other situational data [than that listed in 1-7], such as employer name and address	11	33		1		4
Advising adult students about the possibility of earning credit through the equivalency procedures of *National Guide to Educational Credit for Training Programs* (American Council on Education)	10	29			5	5
*Taking a leadership role in encouraging or causing other advisors to broaden their knowledge of adult learning or adult learners	10	37				2
Making some part of the academic advising program available at off-campus locations	8	39				2
*Participating in a workshop or other formal learning experience designed to broaden academic advisors' knowledge of adult learning or adult learners	8	39			1	1
Advising adult students about the possibility of earning credit through the equivalency procedures of New York Regents' *Guide to Educational Programs in Noncollegiate Organizations*...	7	33		1	3	5
Advising students, where appropriate, about possible modes of instruction which are alternatives to campus-based courses and programs, such as courses available through radio, telecommunications, computerized or other mediated format	7	38			2	2
Using computer-assisted academic advising, such as SIGI, DISCOVER, or other similar software, for adult students	3	45				1

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Table 10
Usage by Support-Service Units, Division of Continuing Education, and University Without Walls of Selected Practices Effective in Serving Adult Undergraduates, Ranked According to Percentage of "Yes" Responses

	Is this your unit's practice?			
Practices	n	% "Yes"	DCE	UWW
Coordinating some services with other campus support units which include adult students in their clientele	14*	100	Yes*	Yes*
Collecting information about the adult students served by the unit, in the general category of demographic data (name, address, phone)	8	100	Yes	Yes
Including information about academic program alternatives and requirements in orientation activities which include or are available to adult students	7	100	Yes	Yes
Providing information to advisees about other sources of academic advising at UMass	6	100	Yes	Yes
Providing information to advisees about programs of personal and career counseling elsewhere on campus	6	100	Yes	Yes
Having some persons in your unit who have undergone training or done special reading pertaining to the advising of adults	6	100	Yes	Yes
Undergoing self-study in the unit to identify academic support services needed by students (including adult students)	6	100	Yes	Yes
Including attention to professional, vocational, and life plans and aspirations in orientation activities which include or are available to adult students	8	88	Yes	Yes
Collecting information about the adult students served by the unit, in the general categories of				
socioeconomic data (e.g., age, gender, ethnic background, marital status, number of dependent children, income)	7	86	Yes	Yes
academic needs data (e.g., needs for academic support such as remedial writing, preferred class schedule, preferred learning modes...)	7	86	Yes	No
Informing students enrolled in the University Without Walls about your support services	12	83	Yes	N/A
Collecting information about the adult students served by the unit, in the general category of personal needs data [e.g., use of support services, vocational or career choice, child care use or needs, financial needs]	6	83	No	No
Keeping appropriate records concerning adult students who have graduated	6	83	Yes	Yes

(continued)

Table 10, continued

Practices	n	% "Yes"	Is this your unit's practice? DCE	UWW
Coordinating some services with University Without Walls	13	77	Yes	N/A
Encouraging one or more unit staff to serve on committees or advisory groups which deal with the concerns of adult students	16	75	Yes	Yes
Implementing or planning a needs assessment which includes attention to opinions of current adult students				
about presently available programs and services	8	75	Yes	Yes
about programs and services not presently provided	8	75	Yes	Yes
Coordinating some services with the Division of Continuing Education	14	71	N/A	Yes
Encouraging one or more unit staff to undergo training or do special reading pertaining to services for adults	13	69	Yes	Yes
Including information about student services in orientation activities which include or are available to adult students	6	67	Yes	Yes
Informing students enrolled in continuing education programs about your support services	14	64	N/A	No
Establishing or maintaining a newsletter or other publication which provides information of special interest to adult students	13	62	Yes	Yes
Establishing or maintaining a mechanism for gathering information from adult students to identify needed campus services	15	60	Yes	Yes
Instituting or maintaining a peer assistance program for students (including adult students) in academic difficulty	6	33	Yes	No
Opening non-library learning resource centers in evenings and on weekends	9	33	Yes	Yes
Exploring the possibility of creating an office for directing and/or coordinating programs and services for adult students	14	7	Yes	Yes

*Units contributed Yes/No-codable responses to the 26 items as follows: DCE, 24; UWW, 24; Everywoman's Center, 24; Center for Counseling and Academic Development, 21; Handicapped Student Affairs, 16; Office of the Registrar, 16; Communication Skills Center, 15; New Students Program, 15; Student Affairs Research and Evaluation Office, 14; University Placement Services, 13; Student Activities, 13; Undergraduate Admissions, 12; University Internship Program, 12; Collegiate Committee for the Education of Black and Other Minority Students, 11; Financial Aid Office, 10; Commuter Area Government, 10; Office for Cooperative Education, 10; Bilingual Collegiate Program, 9; Student Government Association, 7; Child Care Services, 6; Campus Parking, 5; Admissions/Transfer Affairs, 3; University Housing Services, 3; University Library, 3; University Mental Health Services, 0; Veterans' Assistance and Counseling Services, 0 (not interviewed).

(It should be noted that although instructions to survey participants clearly specified that the study's focus was on practices used with adult _undergraduates_, it is possible that some respondents, especially those in units serving large proportions of graduate students, were influenced in their choices of usage responses by the prevalence in their units' normal routines of practices used with the _graduate-student_ population. See Hindsights, Appendix F, for additional comment on this factor.)

In the next text section, proponence and usage will be compared according to various characteristics of respondents.

Proponence and Usage According to Characteristics of Three Respondent Groups

Findings in this section and the two following sections are presented so that they answer the research question, How do proponence for, and usage of, practices effective in serving adults vary according to certain characteristics of respondent groups? Unit heads are the focus group in this section, faculty in the following section, and academic advisors in the third section.

Certain aspects of the preparation and analysis of the data apply to all three sections. Whereas preceding parts of the chapter treated proponence and usage individually, with separate sets of tables for each, the following discussion treats proponence alongside usage. The figures reported are percentages rather than numbers of respondents who answered "Yes" to "Are you a proponent of this practice?" and "Is this your [unit]'s practice?" The term _proponence score_ is the label for the former quantity, _usage score_ the term for the latter.

The difference between a reported percentage figure and 100% generally can be assumed to represent the "No" response. However, as shown earlier, some responses were coded "Rarely," "Conditional," "Other Comment," or "Blank." For some items in the unit-head and advisor instruments, the nature of nontypical response, particularly "Other Comment," is noteworthy, and will be mentioned for its influence on recommendations.

Variation in proponence and usage is frequently broad within and across subgroups. Sometimes proponence and usage for individual practices seem, upon visual inspection of percentage figures in tables, to be arithmetically different but are not identified as statistically different. The reasons are that variation within a respondent group is too broad or that comparison-group sizes are too small for differences to be detected by the chosen statistical procedures.

Statistical comparisons were undertaken using the computerized ONEWAY analysis of variance routine selected from _Statistical Package for the Social Sciences_ (Nie _et al_., 1975, pp. 422-428). The chosen significance level is .05. So that subgroups of greatest influence on significant differences in scores could be pinpointed, comparisons involving three or more subgroups were subjected to the Student-Neuman-Keuls procedure, third most powerful among seven _a posteriori_ tests available in the ONEWAY routine (p. 427).

The order of presentation of outcomes is as follows: Following brief descriptions of the survey instrument and the respondent group, some preliminary observations are offered from visual inspection of proponence and usage scores. Then outcomes of statistical analysis across aggregations of respondent data are summarized. At several points observations are made about unusual relationships occuring where more predictable ones might have been expected.

Appropriate tables are grouped together and inserted following the respondent-group section to which they pertain. Significantly differing scores are marked via a system of rectangles and underscoring which is described fully under Data Analysis and Display at the end of Chapter III. In the text, relationships of subgroups differing significantly are reported in "higher" and "lower" terms. Items of practice are abbreviated in Tables 11-20; complete wording can be found in Tables 3-10.

Proponence and Usage According to Unit-Head Characteristics

Unit heads were asked to respond to 47 items of practice grouped under five headings: Course Delivery Practices, Academic Program Information and Delivery Practices, Credit Evaluation Practices, Practices Concerning Academic Performance, and Faculty and Staff Development Practices.

Forty-eight unit heads, 41 male and 7 female, provided usable responses to the instrument. Twenty-three are department chairs; 19, department heads; 3, division chairs; and 3, division directors. Their school, college, and faculty affiliations are listed in the response-rate report at the beginning of this chapter and in Table 11. Males are slightly underrepresented in comparison to females, as are department heads in comparison to department chairs, and as are unit heads in Natural Sciences and Mathematics and the School of Management in comparison to the seven other organizational units.

Unit heads are, on the average, proponents of 60% of the named practices, nearly twice as many practices as are in normal use in their departments and divisions (see whole-group total scores, Table 11). These bottom-line measures are by themselves inadequate for answering the research question, however, because there is enormous range across units and items. As one illustration, the range of total proponence scores across the first aggregation of data (school, college, and faculty affiliation) is nearly 50 percentage points. Extremes are found in the specifics, too: Proponence for individual practices ranges from 0 to 100%, and usage from nonexistent to nearly universal.

The three types of aggregation for which results of data analysis are reported here include school-college-faculty affiliation, adult-enrollment cluster, and gender of unit head. Subgroup sizes, proponence scores, and usage scores are presented by school, college, and faculty affiliation in Table 11, by adult-enrollment cluster in Table 12, and by unit-head gender in Table 13.

School, College, and Faculty Affiliation

Reflecting the overall pattern already cited, the nine school-college-faculty subgroups of unit heads are proponents of more practices in all categories than are normally utilized in their academic units. Academic Performance Practices, as a group, have more proponents, on the average, than do the other four categories of practices, while Course Delivery Practices have more usage in the university than do those in the other four categories. Across the spectrum, variation in proponence is generally greater than variation in usage.

Education unit heads' sectional scores are consistently highest on the proponence side of all five sections, and highest on the usage side in four. Health Sciences unit heads place relatively high in proponence, less high in usage. Statistical comparison reveals that the Education unit heads´ proponence score, at the total-instrument level, is significantly higher than those of all of the other school-college-faculty unit-head subgroups except Health Sciences. In the same order but less broadly, the total proponence score of HSC unit heads is significantly higher than the scores of Humanities and Fine Arts and of Social and Behavioral Sciences unit heads.

At the other extreme in relationships are Social and Behavioral Sciences unit heads, whose total proponence score was identified as significantly lower than those of the other eight unit-head subgroups. Corresponding significant differences between SBS´ and others´ total usage scores were not found.

Section I: Course Delivery Practices. The seven delivery modes, when considered as a set characterized by section subtotal scores, appear to find favor with fully two-thirds of unit heads and usage in 40% of possible places. But no significant differences were revealed in section subtotals across school-college-faculty subgroups, because variation within subgroups and from item to item is considerable.

For some delivery modes, proponence roughly matches usage. One of those matches is at the "low" end: Correspondence study has few proponents and no usage in the school-college-faculty units represented in the survey. Other matches are at the "higher" end: Fairly widespread usage corresponds roughly to the extent of unit-head proponence concerning the offering of courses via independent study and the offering of courses through the Division of Continuing Education. Engineering has significantly higher usage scores than certain other units concerning off-campus programming and media-based delivery modes.

Section II: Academic Program Information and Delivery Practices. The first four items in this section are responsible for pulling down the section's subtotal scores. They describe applications to entire programs of the alternative delivery modes which were applied in Section I to single courses: correspondence study, independent study, off-campus scheduling, and media-based formats. Both proponence and usage scores, whether they were high or low at the single-course level, plummet at the entire-program level. Education and Engineering are significantly higher than most other units in usage of independent study and media-based formats, respectively, to deliver whole programs. (See Hindsights, Appendix F, for comments on EDU and ENG usage scores.)

Other significant differences between Education and various other units concern making possible the completion of some programs by part-time students (a) within the 10-semester limit and (b) outside daytime, weekday hours. In both cases EDU unit heads' scores are higher, contributing to the cumulative variation reflected in the EDU subtotal score, which is significantly higher than the scores of several other units.

The zero proponence scores of Management and Physical Education unit heads for making individualized courses of study possible are significantly lower than the scores of two and seven other units, respectively. This finding is offered with caution, however, because MGT is somewhat underrepresented in respondent data in comparison to other units.

Section III: Credit Evaluation Practices. Table 11's display of proponence and usage scores for 14 credit evaluation practices is startling, because zero scores and 100% scores are both numerous. A closer look reveals this pattern: Scores are generally high for conventional practices such as awarding value equivalent to resident, day-course credit for incoming credits from (a) other institutions´ day programs and (b, c) continuing education programs here and elsewhere. In contrast, proponence scores are a mixture of high and low, and usage scores are generally low, for practices of awarding credit via three kinds of standardized *examinations* (CLEP, PEP, CEEB/AP) and via *equivalency* procedures described in three specific guides (dealing with military education and other training acquired outside higher education institutions).

At this point some consideration of unusual and missing response is appropriate. While much of the non-affirmative response concerning these six credit-award items is indeed unambiguous "No," from 15% to 29% of possible proponence response and from 13% to 25% of possible usage response consists of (a) comments indicating unfamiliarity with, or uncertainty about, the six practices, and (b) failures to respond (blanks). Despite the incompleteness of data from other units in these areas, the 100% proponence scores of Education unit heads for the six practices are statistically higher than those of most other units.

The cumulative proponence of both Education and Health Sciences unit heads in Section III is again reflected in their subtotal scores. Although HSC´s position across the items is less evident in Table 11, the subtotal scores of HSC and EDU unit heads are significantly higher than proponence subtotals of seven and four other units, respectively.

Section IV: Practices Concerning Academic Performance. In Section IV of Table 11, 100% figures for various academic-performance practices are generously sprinkled across the proponence side, interrupted only by lines of lesser proponence figures for off-campus and after-hours advising and for various remedial-program formats. Following the instrument-wide pattern, usage scores are generally lower than corresponding proponence scores, except for departmental academic advising, which appears to be almost universally used in the units represented. (The almost was an unexpected qualifier.)

Significant differences are nearly nonexistent in the Academic Performance Practices section. Only one finding encompasses most of the subgroups: The score of Engineering unit heads for usage of peer assistance programs is significantly higher than the scores of all but Health Sciences.

Section V: Faculty and Staff Development Practices. The set of four personnel practices effective in serving adults is the smallest of the five sections of the instrument. These items elicited little in the way of significant variation in proponence or usage across school, college, and faculty subgroups.

Some insight can be gained from the data, however. Visual inspection of subtotal scores reveals that the disparity between proponence and usage is greatest in this section. The extreme of this disparity is in sponsorship of, or participation in, staff training designed to improve service to adult students: Unit-head proponence for this practice ranges from 33% to 100% and is present in all but the MGT subgroup, but no reports of usage were tallied.

Adult-Enrollment Cluster

The nine school-college-faculty cells into which data were sorted for the preceding portion of this report were regrouped into three clusters according to the average percentages of adult undergraduates enrolled in the spring 1987 semester. This compression produced a 5% cluster (FNR + SBS + PHE + MGT = 20 unit heads), a 10% cluster (HFA + NSM + ENG = 22 unit heads), and a 15% cluster (EDU + HSC = 6 unit heads). The focus of the regrouping is on examining unit heads' proponence and usage according to the adult enrollment in their units.

The clustering process had three interesting kinds of effects: It strengthened some findings already extracted in the nine-subgroup format; this result was somewhat anticipated on the theoretical grounds that the power of an analysis of variance to detect differences increases as comparison groups increase in size and, to a point, as they decrease in number. The clustering process also allowed numerous new findings to emerge, and, less predictably, obscured a few earlier observations. Following a summary of total and subtotal scores in the new configuration, this section is structured according to the three effects of regrouping data.

A look at sectional subtotals and the grand total in Table 12 shows that at all of the summary points except two--proponence for Course Delivery Practices and usage of Academic Performance Practices --units heads in the 15% cluster score significantly higher than unit heads in the 10% and 5% clusters. While a closer focus is still needed to trace the accumulating variation across individual items of practice, the general notion that the 15% cluster of unit heads predominates in both proponence and usage is established at the summary level.

Here too, more clearly than before, the pattern that proponence outdistances usage is evident. Across the three clusters, the proponence-usage gap is narrowest for Credit Evaluation Practices, widest for Faculty and Staff Development Practices.

Strengthened Findings. Two previous findings in particular were strengthened when nine subgroups were compressed into three: When usage figures of HSC and EDU units are summed as the 15% cluster, significant differences emerge between that cluster and the 10% and 5% clusters concerning making possible program completion by part-timers within the 10-semester limit and outside daytime, weekday hours. In both cases, unit heads in the 15% cluster score significantly higher than those in the 10% and 5% clusters.

Proponence and usage for three credit-by-examination practices and proponence alone for three credit-by-equivalency practices (the six items described earlier as "unfamiliar" to numerous respondents) are more clearly concentrated in units serving greater proportions of adult students. For most of the six practices, the scores of unit heads in the 15% cluster are significantly higher than scores of those in the 10% and 5% clusters. For two of the six practices, unit heads in the 10% cluster score significantly higher than those in the 5% cluster.

New Findings. Several findings not detected when data were arrayed in nine subgroups emerged from the three-cluster format. Generally, the pattern prevails that the 15% cluster has the significantly higher score. Of considerable interest are findings in the academic-performance and personnel-development sections, where significant variation was sparse under the nine-cell aggregation. Here are found differences in proponence for and usage of off-campus advising; in proponence for rewarding faculty who work with adults; in proponence for sponsoring or participating in staff training designed to improve service to adult students; and in proponence for remedial programs in after-hours and off-campus settings. (Findings concerning the two remedial-program alternatives would perhaps have carried more weight had the items attracted more attention from respondents; nearly one-sixth of unit heads failed to respond to these items or wrote comments classifiable as neither clearly affirmative nor clearly negative.)

Two new findings on the usage side in the program information and delivery section also fit the pattern of dominance of the units enrolling an average of 15% adult students. The two practices of interest are (a) designing brochures to reflect age diversity as desirable and (b) making efforts to attract adults.

In two departures from the established pattern, the proponence score of the *5%* cluster of unit heads is significantly different higher than the 10% cluster's score for off-campus advising and for collecting reasons students drop out of departmental programs.

Obscured Findings. A few earlier results became less clear when nine subgroups were reduced to three. The significant variation in proponence for alternate delivery modes which was noted in the school-college-faculty aggregation "disappeared," statistically at least, when three clusters were compared. (Tables 11 and 12 illustrate the differences.)

Inviting the greatest confusion, perhaps, is the area of proponence for allowing students to develop individualized courses of study. When arrayed across nine subgroups, proponence scores for this practice lie in a 0-100% range, with scores of EDU and HSC unit heads significantly higher than others. As the 15% cluster, EDU/HSC is no longer statistically identified as the higher scorer, although on visual inspection it would appear to be in that position. Attention is called to the 10% cluster of unit heads, whose proponence and usage scores for individualized courses of study are significantly higher than those in the 5% cluster.

Any potential confusion fostered by the compression of data into fewer categories is outweighed by the number of additional findings and the greater generalizability made possible by the second analysis.

Gender

Aggregating respondent data according to gender produced subgroups of greatly unequal size: 41 males and seven females. Theoretically, this means that in tests for significant differences a female subgroup score must be appreciably different from the male subgroup score in order to be identified as significantly different. There are few such distances; thus Table 13 has almost no symbols marking significant differences in proponence or usage among male and female unit heads.

Among those few, two are interesting, one because it has not previously been highlighted as a locus of variation. The usage scores of female unit heads, as a group, are significantly higher than male unit heads´ scores for (a) the inclusion of the topic of student learning styles in faculty discussion agendas; and (b) the provision of evening/weekend advising. Significant differences in scores representing usage of three credit-by-equivalency procedures also place female units in the higher-scoring position. However, given the number of usable findings from other analyses, comparing zero scores (male subgroup) with other very low scores (female subgroup) seems trivial.

Table 11
Proponence and Usage of Unit Heads (n=48)
According to School, College, and Faculty Affiliation

	PROPONENCE ("Are you a proponent of this practice?")										USAGE ("Is this your department´s practice?")									
	HFA	NSM	SBS	EDU	ENG	FNR	HSC	MGT	PHE	ALL	HFA	NSM	SBS	EDU	ENG	FNR	HSC	MGT	PHE	ALL
N=	13	5	6	3	4	9	3	2	3	48	13	5	6	3	4	9	3	2	3	48
SECTION I: Course Delivery Practices																				
Corresp courses	7.7	0	0	66.7	0	11.1	0	0	33.3	10.4	0	0	0	0	0	0	0	0	0	0
Indep study courses	76.9	100.0	66.7	100.0	50.0	88.9	66.7	50.0	66.7	77.1	69.2	80.0	66.7	66.7	50.0	66.7	33.3	50.0	33.3	62.5
Off-campus courses	69.2	40.0	16.7	100.0	75.0	88.9	66.7	50.0	66.7	64.6	7.7	40.0	0	66.7	75.0	0	33.3	50.0	33.3	22.9
Media deliv courses	53.8	100.0	0	100.0	75.0	88.9	66.7	100.0	66.7	66.7	7.7	20.0	0	0	75.0	0	0	0	0	10.4
Fewer/longer classes	84.6	80.0	83.3	100.0	50.0	77.8	100.0	100.0	66.7	81.3	84.6	60.0	50.0	100.0	50.0	44.4	66.7	0	66.7	62.5
Eve/weekend courses	92.3	60.0	83.3	100.0	25.0	88.9	100.0	100.0	66.7	81.3	61.5	60.0	50.0	100.0	50.0	22.2	66.7	50.0	0	50.0
Con Ed courses	92.3	100.0	83.3	100.0	75.0	66.7	100.0	100.0	66.7	85.4	92.3	100.0	83.3	100.0	100.0	66.7	100.0	100.0	66.7	87.5
SECTION SUBTOTALS	68.1	68.6	47.6	95.2	50.0	73.0	71.4	71.4	61.9	66.7	46.2	51.4	35.7	61.9	57.1	28.6	42.9	35.7	28.6	42.3
SECTION II: Academic Program Information and Delivery Practices																				
Corresp programs	0	0	0	33.3	0	11.1	0	0	0	4.2	0	0	0	0	0	0	0	0	0	0
Indep study progs	7.7	0	0	33.3	0	0	0	0	0	4.2	0	0	0	33.3	0	0	0	0	0	2.1
Off-campus progs	15.4	0	16.7	66.7	25.0	33.3	33.3	50.0	0	22.9	7.7	0	0	33.3	50.0	11.1	0	50.0	0	12.5
Media deliv progs	7.7	0	0	66.7	50.0	11.1	66.7	50.0	0	18.8	7.7	0	0	0	50.0	0	0	0	0	6.3
10-sem. completion	61.5	40.0	33.3	100.0	0	66.7	66.7	50.0	33.3	52.1	15.4	20.0	0	100.0	0	11.1	66.7	50.0	0	20.8

(continued)

Table 11,
continued

	PROPONENCE										USAGE									
	HFA	NSM	SBS	EDU	ENG	FNR	HSC	MGT	PHE	ALL	HFA	NSM	SBS	EDU	ENG	FNR	HSC	MGT	PHE	ALL
N=	13	5	6	3	4	9	3	2	3	48	13	5	6	3	4	9	3	2	3	48
Eve/wknd completion	46.2	60.0	50.0	100.0	50.0	44.4	100.0	100.0	33.3	56.3	23.1	40.0	0	100.0	25.0	22.2	66.7	0	0	27.1
Indiv'z'd courses	84.6	100.0	66.7	100.0	75.0	77.8	100.0	0	0	75.0	46.2	60.0	33.3	100.0	50.0	22.2	33.3	0	0	39.6
Brochures:structure	92.3	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	97.9	69.2	100.0	100.0	33.3	75.0	66.7	66.7	100.0	100.0	77.1
Brochures:age	69.2	60.0	83.3	100.0	50.0	77.8	100.0	100.0	100.0	77.1	7.7	0	16.7	66.7	25.0	11.1	66.7	0	33.3	18.8
Attract adults	61.5	80.0	83.3	100.0	100.0	88.9	100.0	50.0	66.7	79.2	23.1	0	33.3	66.7	25.0	22.2	66.7	50.0	0	27.1
SECTION SUBTOTALS	44.6	44.0	43.3	80.0	45.0	51.1	66.7	50.0	33.3	48.8	20.0	22.0	18.3	53.3	30.0	16.7	36.7	25.0	13.3	23.1
SECTION III: Credit Evaluation Practices																				
UMass Con Ed credit	76.9	100.0	83.3	100.0	75.0	88.9	100.0	100.0	66.7	85.4	76.9	80.0	83.3	100.0	75.0	77.8	66.7	100.0	66.7	79.2
Day progs, other u's	100.0	100.0	83.3	100.0	100.0	100.0	100.0	100.0	100.0	97.9	100.0	80.0	83.3	100.0	100.0	100.0	100.0	100.0	100.0	95.8
Con Ed, other u's	69.2	60.0	83.3	100.0	50.0	88.9	100.0	50.0	100.0	77.1	69.2	80.0	83.3	100.0	75.0	77.8	100.0	50.0	100.0	79.2
CLEP exams	38.5	60.0	0	100.0	0	33.3	100.0	50.0	0	37.5	30.8	40.0	0	66.7	0	22.2	66.7	50.0	0	27.1
PEP exams	15.4	40.0	0	100.0	0	22.2	66.7	0	0	22.9	15.4	20.0	0	66.7	0	11.1	33.3	0	0	14.6
CEEB/AP exams	46.2	80.0	0	100.0	0	33.3	66.7	0	0	37.5	38.5	60.0	0	66.7	0	11.1	33.3	0	0	25.0
Dept exams	69.2	100.0	33.3	100.0	25.0	77.8	100.0	50.0	66.7	68.8	53.8	60.0	16.7	66.7	25.0	44.4	66.7	50.0	0	43.8
Military equiv'cy	0	0	0	100.0	0	33.3	33.3	0	0	14.6	0	20.0	0	0	0	0	0	0	0	2.1
Training equiv'cy	0	0	0	100.0	0	33.3	33.3	0	0	14.6	0	20.0	0	0	0	0	0	0	0	2.1
Regents' exams	0	0	0	100.0	0	33.3	33.3	0	0	14.6	0	20.0	0	0	0	0	0	0	0	2.1
Other credit	46.2	40.0	0	100.0	75.0	22.2	100.0	0	33.3	41.7	23.1	0	0	66.7	75.0	11.1	33.3	50.0	0	22.9

(continued)

Table 11, continued

	PROPONENCE										USAGE									
	HFA	NSM	SBS	EDU	ENG	FNR	HSC	MGT	PHE	ALL	HFA	NSM	SBS	EDU	ENG	FNR	HSC	MGT	PHE	ALL
N=	13	5	6	3	4	9	3	2	3	48	13	5	6	3	4	9	3	2	3	48
Portfolio prep	53.8	40.0	16.7	100.0	75.0	55.6	100.0	50.0	33.3	54.2	23.1	0	16.7	66.7	25.0	11.1	33.3	50.0	0	20.8
SECTION SUBTOTALS	42.9	51.7	25.0	100.0	33.3	51.9	77.8	33.3	33.3	47.2	35.9	40.0	23.6	58.3	31.3	30.6	44.4	37.5	22.2	34.5
SECTION IV: Practices Concerning Academic Performance																				
Advising in dept	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	80.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	97.9
Advising referral	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	66.7	97.9	84.6	80.0	66.7	100.0	25.0	66.7	100.0	0	66.7	70.8
Eve/weekend advsg	53.8	60.0	33.3	100.0	25.0	77.8	66.7	0	33.3	54.2	7.7	40.0	16.7	33.3	25.0	44.4	66.7	0	0	25.0
Off-campus advsg	7.7	20.0	33.3	66.7	25.0	66.7	66.7	50.0	33.3	35.4	0	0	16.7	66.7	25.0	33.3	33.3	50.0	0	18.8
Monitor progress	100.0	100.0	100.0	100.0	100.0	88.9	100.0	100.0	100.0	97.9	84.6	100.0	66.7	66.7	100.0	66.7	100.0	0	66.7	77.1
Retention data	76.9	100.0	83.3	100.0	100.0	100.0	100.0	100.0	100.0	91.7	15.4	80.0	16.7	0	25.0	22.2	66.7	50.0	66.7	31.3
Dropout reasons	69.2	80.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	89.6	7.7	40.0	16.7	0	25.0	33.3	66.7	0	66.7	25.0
Peer assistance	53.8	80.0	83.3	100.0	100.0	66.7	100.0	100.0	66.7	75.0	0	0	16.7	0	75.0	11.1	33.3	0	0	12.5
Accelerated courses	92.3	100.0	100.0	100.0	75.0	88.9	100.0	100.0	100.0	93.8	84.6	100.0	100.0	33.3	50.0	55.6	100.0	100.0	33.3	75.0
Remedial programs	53.8	40.0	66.7	100.0	25.0	55.6	100.0	0	66.7	56.3	23.1	20.0	16.7	0	0	22.2	33.3	0	66.7	20.8
Remedial referral	84.6	100.0	100.0	100.0	75.0	100.0	100.0	50.0	100.0	91.7	46.2	20.0	50.0	33.3	25.0	55.6	33.3	0	66.7	41.7
Eve/weekend remedial	38.5	20.0	16.7	100.0	25.0	66.7	100.0	50.0	33.3	45.8	7.7	0	0	33.3	0	22.2	33.3	0	0	10.4
Off-campus remedial	15.4	20.0	0	100.0	25.0	44.4	66.7	50.0	33.3	31.3	0	0	0	0	0	11.1	0	0	0	2.1
Mediated remedial	30.8	60.0	33.3	100.0	25.0	44.4	66.7	50.0	66.7	45.8	15.4	0	0	33.3	25.0	11.1	0	0	0	10.4
SECTION SUBTOTALS	62.6	70.0	67.9	97.6	64.3	78.6	90.5	67.9	71.4	71.9	34.1	40.0	34.5	35.7	35.7	39.7	54.8	21.4	38.1	37.1

(continued)

Table 11, continued

	PROPONENCE										USAGE									
	HFA	NSM	SBS	EDU	ENG	FNR	HSC	MGT	PHE	ALL	HFA	NSM	SBS	EDU	ENG	FNR	HSC	MGT	PHE	ALL
N=	13	5	6	3	4	9	3	2	3	48	13	5	6	3	4	9	3	2	3	48
SECTION V: Faculty and Staff Development Practices																				
Discuss learn style	61.5	40.0	83.3	100.0	100.0	100.0	100.0	50.0	33.3	75.0	$\underline{15.4}$	20.0	50.0	$\boxed{100.0}$	0	$\underline{22.2}$	66.7	0	0	27.1
Discuss completion	92.3	100.0	66.7	100.0	100.0	100.0	100.0	100.0	66.7	91.7	23.1	60.0	50.0	66.7	57.7	44.4	100.0	100.0	33.3	52.1
Faculty rewards	23.1	40.0	16.7	66.7	25.0	44.4	100.0	0	33.3	35.4	7.7	0	0	0	25.0	11.1	0	0	0	6.3
Staff training	53.8	60.0	33.3	100.0	75.0	55.6	100.0	0	33.3	56.3	0	0	0	0	0	0	0	0	0	0
SECTION SUBTOTALS	57.7	60.0	50.0	91.7	75.0	75.0	100.0	37.5	41.7	64.6	11.5	20.0	25.0	41.7	31.3	19.4	41.7	25.0	8.3	21.4
INSTRUMENT TOTALS	$\underline{\underline{54.2}}$	$\underline{58.7}$	$\underline{\underline{47.2}}$	$\boxed{93.6}$	$\underline{51.1}$	$\underline{64.8}$	$\boxed{80.1}$	$\underline{53.2}$	$\underline{49.6}$	59.3	31.4	36.2	27.7	49.6	36.2	29.1	45.4	28.7	24.8	32.9

Note. Figures shown are percentages of affirmative responses. Analyses of variance (F tests) were conducted on numbers of affirmative responses at $p \leq .05$. F tests were distributed on c-1 and n-c-1 degrees of freedom, where n is the total sample size and c is the number of classifications.

Symbols. In any one row (between vertical lines) a figure in a rectangle is significantly different from (higher or lower than) the underlined figure(s). A figure in a dashed-line rectangle is significantly different from (higher or lower than) the figure(s) underscored with dashes. (See pages 94-96 for rationale of symbol system.)

Abbreviations. School, college, and faculty abbreviations are defined on page 12. Full wording of practices listed in the unit-head instrument is provided in Table 3, page 110, and Table 7, page 123.

Table 12
Proponence and Usage of Unit Heads (n=48) According to Three Adult-Enrollment Clusters

	PROPONENCE ("Are you a proponent of this practice?")				USAGE ("Is this your department's practice?")			
	5% Adults	10% Adults	15% Adults	Total	5% Adults	10% Adults	15% Adults	Total
N=	20	22	6	48	20	22	6	48
SECTION I: Course Delivery Practices								
Corresp courses	10.0	4.5	33.3	10.4	0	0	0	0
Indep study courses	75.0	77.2	83.3	77.1	60.0	68.2	50.0	62.5
Off-campus courses	60.0	63.6	83.3	64.6	10.0	27.3	50.0	22.9
Media deliv courses	60.0	68.1	83.3	66.7	0	22.7	0	10.4
Fewer/longer classes	80.0	77.2	100.0	81.3	45.0	72.7	83.3	62.5
Eve/weekend courses	77.2	72.7	100.0	81.3	30.0	59.1	83.3	50.0
Con Ed courses	75.0	90.9	100.0	85.4	75.0	95.5	100.0	87.5
SECTION SUBTOTALS	63.6	64.9	83.3	66.7	31.4	49.4	52.4	42.3
SECTION II: Academic Program Information and Delivery Practices								
Corresp programs	5.0	0	16.6	4.2	0	0	0	0
Indep study progs	0	4.5	16.6	4.2	0	0	16.7	2.1
Off-campus progs	25.0	13.6	50.0	22.9	10.0	13.6	16.7	12.5
Media deliv progs	10.0	13.6	66.7	18.8	0	13.6	0	6.3
10-sem. completion	50.0	45.5	83.3	52.1	10.0	13.6	83.3	20.8
Eve/wknd completion	50.0	50.0	100.0	56.3	10.0	27.3	83.3	27.1
Indiv'z'd courses	55.0	86.4	100.0	75.0	20.0	50.0	66.7	39.6
Brochures:structure	100.0	95.5	100.0	97.9	85.0	77.3	50.0	77.1
Brochures:age	85.0	63.6	100.0	77.1	15.0	9.1	66.7	18.8
Attract adults	80.0	72.7	100.0	79.2	25.0	18.2	66.7	27.1
SECTION SUBTOTALS	46.0	44.5	73.3	48.8	17.5	22.3	45.0	23.1

(continued)

Table 12, continued	PROPONENCE				USAGE			
	5% Adults	10% Adults	15% Adults	Total	5% Adults	10% Adults	15% Adults	Total
N=	20	22	6	48	20	22	6	48
SECTION III: Credit Evaluation Practices								
UMass Con Ed credit	85.0	81.8	100.0	85.4	80.0	77.3	83.3	79.2
Day progs, other u´s	95.0	100.0	100.0	97.9	95.0	95.5	100.0	95.8
Con Ed, other u´s	85.0	63.6	100.0	77.1	80.0	72.7	100.0	79.2
CLEP exams	20.0	36.4	100.0	37.5	15.0	27.3	66.7	27.1
PEP exams	10.0	18.2	83.3	22.9	5.0	13.6	50.0	14.6
CEEB/AP exams	15.0	45.4	83.3	37.5	5.0	36.4	50.0	25.0
Dept exams	60.0	68.2	100.0	68.8	30.0	50.0	66.7	43.8
Military equiv´cy	15.0	0	66.7	14.6	0	4.5	0	2.1
Training equiv´cy	15.0	0	66.7	14.6	0	4.5	0	2.1
Regents´ exams	15.0	0	66.7	14.6	0	4.5	0	2.1
Other credit	15.0	50.0	100.0	41.7	10.0	27.3	50.0	22.9
Portfolio prep	40.0	54.5	100.0	54.2	15.0	18.2	50.0	20.8
SECTION SUBTOTALS	39.2	43.2	88.9	47.2	27.9	36.0	51.4	34.5
SECTION IV: Practices Concerning Academic Performance								
Advising in dept	100.0	100.0	100.0	100.0	100.0	95.5	100.0	97.9
Advising referral	95.0	100.0	100.0	97.9	60.0	72.7	100.0	70.8
Eve/weekend advsg	50.0	50.0	83.3	54.2	25.0	18.2	50.0	25.0
Off-campus advsg	50.0	13.6	66.7	35.4	25.0	4.5	50.0	18.8
Monitor progress	95.0	100.0	100.0	97.9	60.0	90.9	83.3	77.1
Retention data	95.0	86.3	100.0	91.7	30.0	31.8	33.3	31.3
Dropout reasons	100.0	77.3	100.0	89.6	30.0	18.2	33.3	25.0
Peer assistance	75.0	68.2	100.0	75.0	10.0	13.6	16.7	12.5
Accelerated courses	95.0	90.9	100.0	93.8	70.0	81.8	66.7	75.0
Remedial programs	55.0	45.5	100.0	56.3	25.0	18.2	16.7	20.8
Remedial referral	95.0	86.4	100.0	91.7	50.0	36.4	33.3	41.7
Eve/weekend remedial	45.0	31.8	100.0	45.8	10.0	4.5	33.3	10.4
Off-campus remedial	30.0	18.2	83.3	31.3	5.0	0	0	2.1
Mediated remedial	45.0	36.4	83.3	45.8	5.0	13.6	16.7	10.4
SECTION SUBTOTALS	73.2	64.6	94.0	71.9	36.1	35.7	45.2	37.1

(continued)

Table 12,
continued

	PROPONENCE				USAGE			
	5% Adults	10% Adults	15% Adults	Total	5% Adults	10% Adults	15% Adults	Total
	N= 20	22	6	48	20	22	6	48
SECTION V: Faculty and Staff Development Practices								
Discuss learn style	80.0	63.6	100.0	75.0	$\underline{25.0}$	$\underline{13.6}$	$\boxed{83.3}$	27.1
Discuss completion	85.0	95.5	100.0	91.7	50.0	45.4	83.3	52.1
Faculty rewards	$\underline{30.0}$	$\underline{27.3}$	$\boxed{83.3}$	35.4	5.0	9.1	0	6.3
Staff training	$\underline{40.0}$	59.1	$\boxed{100.0}$	56.3	0	0	0	0
SECTION SUBTOTALS	$\underline{58.8}$	$\underline{61.4}$	$\boxed{95.8}$	64.6	$\underline{20.0}$	$\underline{17.0}$	$\boxed{41.7}$	21.4
INSTRUMENT TOTALS	$\underline{56.1}$	$\underline{54.6}$	$\boxed{86.9}$	59.3	$\underline{28.0}$	$\underline{33.4}$	$\boxed{47.5}$	32.9

Note. Figures shown are percentages of affirmative responses. Analyses of variance (*F* tests) were conducted on numbers of affirmative responses at $\underline{p} \le$ the total sample size and c is the number of classifications.

Symbols. In any one row (between vertical lines) a figure in a rectangle is significantly different from (higher or lower than) the underlined figure(s). A figure in a dashed-line rectangle is significantly different from (higher or lower than) the figure(s) underscored with dashes. (See pages 94-96 for rationale of symbol system.)

Abbreviations. Composition of adult-enrollment clusters is defined on page 145. Full wording of practices listed in the unit-head instrument is provided in Table 3, page 110, and Table 7, page 123.

Table 13
Proponence and Usage of Unit Heads According to Gender (n=48)

	PROPONENCE ("Are you a proponent of this practice?")			USAGE ("Is this your department's practice?")		
	Male	Female	Total	Male	Female	Total
	N= 41	7	48	41	7	48
SECTION I: Course Delivery Practices						
Corresp courses	9.8	14.3	10.4	0	0	0
Indep study courses	80.5	57.1	77.1	65.9	42.9	62.5
Off-campus courses	65.9	57.1	64.6	22.0	28.6	22.9
Media deliv courses	65.9	71.4	66.7	12.2	0	10.4
Fewer/longer classes	80.5	85.7	81.3	61.0	71.4	62.5
Eve/weekend courses	78.0	100.0	81.3	46.3	71.4	50.0
Con Ed courses	82.9	100.0	85.4	87.8	85.7	87.5
SECTION SUBTOTALS	66.2	69.4	66.7	42.2	42.9	42.3
SECTION II: Academic Program Information and Delivery Practices						
Corresp programs	4.9	0	4.2	0	0	0
Indep study progs	4.9	0	4.2	2.4	0	2.1
Off-campus progs	22.0	28.6	22.9	14.6	0	12.5
Media deliv progs	17.1	28.6	18.8	7.3	0	6.3
10-sem. completion	51.2	57.1	52.1	17.1	42.9	20.8
Eve/wknd completion	51.2	85.7	56.3	24.4	42.9	27.1
Indiv'z'd courses	70.7	100.0	75.0	36.6	57.1	39.6
Brochures:structure	97.6	100.0	97.9	78.0	71.4	77.1
Brochures:age	73.2	100.0	77.1	14.6	42.9	18.8
Attract adults	78.0	85.7	79.2	24.4	42.9	27.1
SECTION SUBTOTALS	47.1	58.6	48.8	22.0	30.0	23.1

(continued)

Table 13, continued

	PROPONENCE			USAGE		
	Male	Female	Total	Male	Female	Total
	N= 41	7	48	41	7	48
SECTION III: Credit Evaluation Practices						
UMass Con Ed credit	82.9	100.0	85.4	78.0	85.7	79.2
Day progs, other u's	97.6	100.0	97.9	95.1	100.0	95.8
Con Ed, other u's	73.2	100.0	77.1	75.6	100.0	79.2
CLEP exams	31.7	71.4	37.5	24.4	42.9	27.1
PEP exams	17.1	57.1	22.9	12.2	28.6	14.6
CEEB/AP exams	34.1	57.1	37.5	24.4	28.6	25.0
Dept exams	68.3	71.4	68.8	43.9	42.9	43.8
Military equiv'cy	12.2	28.6	14.6	$\underline{0}$	$\boxed{14.3}$	2.1
Training equiv'cy	12.2	28.6	14.6	$\underline{0}$	$\boxed{14.3}$	2.1
Regents' exams	12.2	28.6	14.6	$\underline{0}$	$\boxed{14.3}$	2.1
Other credit	$\underline{34.1}$	$\boxed{85.7}$	41.7	22.0	28.6	22.9
Portfolio prep	51.2	71.4	54.2	19.5	28.6	20.8
SECTION SUBTOTALS	43.9	66.7	47.2	32.9	44.0	34.5
SECTION IV: Practices Concerning Academic Performance						
Advising in dept	100.0	100.0	100.0	97.6	100.0	97.9
Advising referral	97.6	100.0	97.9	68.3	85.7	70.8
Eve/weekend advsg	51.2	71.4	54.2	$\underline{19.5}$	$\boxed{57.1}$	25.0
Off-campus advsg	34.1	42.9	35.4	17.1	28.6	18.8
Monitor progress	97.6	100.0	97.9	73.2	100.0	77.1
Retention data	90.2	100.0	91.7	29.3	42.9	31.3
Dropout reasons	87.8	100.0	89.6	24.4	28.6	25.0
Peer assistance	73.2	85.7	75.0	12.2	14.3	12.5
Accelerated courses	92.7	100.0	93.8	73.2	85.7	75.0
Remedial programs	53.7	71.4	56.3	22.0	14.3	20.8
Remedial referral	92.7	85.7	91.7	41.5	42.9	41.7
Eve/weekend remedial	43.9	57.1	45.8	9.8	14.3	10.4
Off-campus remedial	29.3	42.9	31.3	2.4	0	2.1
Mediated remedial	46.3	42.9	45.8	12.2	0	10.4
SECTION SUBTOTALS	70.7	78.5	71.9	35.9	43.9	37.1

(continued)

Table 13, continued

	PROPONENCE			USAGE		
	Male	Female	Total	Male	Female	Total
	N= 41	7	48	41	7	48
SECTION V: Faculty and Staff Development Practices						
Discuss learn style	75.6	71.4	75.0	$\underline{22.0}$	$\boxed{57.1}$	27.1
Discuss completion	90.2	100.0	91.7	48.8	71.4	52.1
Faculty rewards	34.1	42.9	35.4	7.3	0	6.3
Staff training	56.1	57.1	56.3	0	0	0
SECTION SUBTOTALS	64.0	67.9	64.6	19.5	32.1	21.4
INSTRUMENT TOTALS	57.6	69.0	59.3	31.7	39.8	32.9

Note. Figures shown are percentages of affirmative responses. Analyses of variance (F tests) were conducted on numbers of affirmative responses at $p \leq$ the total sample size and c is the number of classifications.

Symbols. In any one row (between vertical lines) a figure in a rectangle is significantly different from (higher than) the underlined figure. (See pages 94-96 for rationale of symbol system.)

Abbreviations. Full wording of practices listed in the unit-head instrument is provided in Table 3, page 110, and Table 7, page 123.

Proponence and Usage According to Faculty Characteristics

The instrument sent to the faculty sample is similar in more ways than it is different from the unit-head instrument. Differences between the two instruments and between the two respondent groups were described in Chapter III, and will be reintroduced only for maintaining clarity or for emphasizing interesting contrasts. (See pages 137-139 for certain aspects of preparation and analysis of data which apply to the faculty group as well as to the unit head and advisor groups.)

Faculty were asked to respond to proponence and usage questions concerning 34 items of practice grouped under five headings: Practices Pertaining to Instructional Modes, Academic Advising and Support Practices, Course Design and Delivery Practices, Faculty Development Practices, and Service and Research. "Usage" questions *only* were attached to two additional groups of items: Recognition [for work with adult students] and Student Development Approach. The latter section was marked "optional." Because the primary focus in this portion of the report is on considering proponence alongside usage, the two "usage-only" sections will be discussed after findings are reported for the first five sections of the instrument. All instrument sections are shown in accompanying tables, which are inserted as a group following this text subsection.

While the stated definition of *usage* holds throughout the survey and analysis, it perhaps has its narrowest connotation in the interpretation of faculty data, because faculty usage scores are collective reports about activity of *individuals* who responded separately. Usage scores in unit-head data, on the other hand, represent activity as perceived across departments or divisions by the persons who oversee those units. *Opportunity* for usage, then, is probably a greater influence on faculty reports of usage; occasional comments of the "I would do this (practice) but I´ve never been asked" variety support such an observation. Thus some faculty non-usage in this study is a function of non-opportunity; some a function of choice. (See Hindsights, Appendix F, for additional comments on factors possibly affecting faculty usage response.)

A total of 91 faculty, 75 male and 16 female, provided usable responses to the faculty instrument. Forty-three hold the rank of professor; 27, associate professor; and 21, assistant professor. Eleven indicated that they teach undergraduates only; 70, that they teach both undergraduate and graduate students; 8, that they teach graduate students only; and 2, that they were not teaching at the time of the survey. Their school, college, and faculty affiliations are listed in the response-rate report at the beginning of this chapter and in Table 14. Faculty from Humanities and Fine Arts, although they constitute nearly 18% of the respondent group, are slightly underrepresented in comparison to the proportion of HFA faculty in the sample surveyed.

The School of Health and Physical Education is represented by only one respondent. PHE responses are included at sectional summary points and when data are aggregated according to adult-enrollment cluster, gender, rank, and teaching level. When scores are displayed or described according to school, college, and faculty units, PHE is omitted, both for confidentiality reasons and because single-member cells are excluded from analysis of variance procedures.

Faculty are, on the average, proponents of about 70% of the practices named in the first five sections of the instrument, and users of about half that number (see whole-group total scores, Table 14). These overall measures represent broad variation among respondents.

The five types of aggregation of respondent data for which results of analyses are reported here are school-college-faculty affiliation, adult-enrollment cluster, gender, academic rank, and teaching level. Subgroup sizes, proponence scores, and usage scores are presented by school, college, and faculty affiliation in Table 14, by adult-enrollment cluster in Table 15, and by gender, academic rank, and teaching level in Table 16.

The outstanding result of examining faculty response is that there are comparatively few significant differences in proponence. Visual evidence is in tables where symbols represent significant variation; the number of proponence differences across all aggregations is less than a third the number of usage differences. Faculty exhibit far fewer proponence differences than unit heads.

School, College, and Faculty Affiliation

The scarcity of significant differences in faculty proponence scores can readily be verified when data are grouped according to school, college, and faculty affiliation. At the summary points in Table 14, visual inspection reveals proponence scores in the 65%-75% range; none is significantly different from others.

Faculty usage is lower than proponence everywhere in the instrument, but the size of the gap varies. At the subtotal level for Instructional Modes (Section I), the Education faculty is significantly higher in usage than three other units; Health Sciences faculty are significantly higher than Food and Natural Resources. Subtotals for Course Design and Delivery Practices show that Education has a significantly higher usage score than only Natural Sciences and Mathematics.

Findings of significant variation concerning six specific practices emerged in this aggregation of data. The Management faculty subgroup has a statistically lower proponence score than the others for giving positive consideration to the experience of a potential adult enrollee. The usage score of Education faculty is significantly higher than varying numbers of other units concerning four alternatives to daytime, weekday instructional formats: off-campus teaching; evening/ weekend teaching; and teaching Division of Continuing Education courses through self or unit initiation or in response to demand from elsewhere. EDU outscores HFA and FNR in undertaking reading about adult students. The usage score of Health Sciences faculty is significantly higher than that of certain other units for teaching the self- or unit-initiated variety of DCE course. Finally, both EDU and HSC are statistically dominant in usage for work with adult students in human service agencies.

Teaching via correspondence study drew little in the way of faculty proponence and almost no faculty usage; this is noteworthy because it echoes a finding from the analysis of unit-head responses. Faculty proponence for, and usage of, the two DCE-course modes are so widely disparate that they will receive major attention in the discussion and recommendations chapter. Specifically, although more than 80% of faculty respondents, on an average which is fairly uniform across the nine subgroups, are proponents of teaching "response" courses through DCE, fewer than 10% do so; somewhat less strikingly, nearly 90% are proponents of teaching self-/unit-initiated DCE courses, but less than a quarter do so.

Other wide disparities between proponence and usage can be singled out through reference to accompanying tables. Although they are no less important to the study as a whole, most of these gaps could be predicted, given the age makeup of the undergraduate population. They concern faculty development, service, and research activities in Sections IV-V which are geared primarily and specifically to understanding and/or working with adult-student populations.

Adult-Enrollment Cluster

Reducing faculty data from nine school-college-faculty subgroups to three enrollment clusters produced these configurations: a 5% cluster (FNR + SBS + PHE + MGT = 39 faculty), a 10% cluster (HFA + NSM + ENG = 42 faculty), and a 15% cluster (EDU + HSC = 10 faculty). The recalculated proponence and usage scores are displayed in Table 15. As was the case with unit-head responses, the regrouping process had mostly beneficial effects upon the identification of significant differences among faculty subgroups.

New Findings. Especially noteworthy are those findings of significant differences concerning Course Design and Delivery Practices. Some fall into predictable patterns: The 15% cluster of faculty is significantly higher-scoring than the 5% and 10% clusters in proponence and usage concerning the incorporation of students' life experiences into course design, and, in usage only, concerning reading about adult students and giving positive consideration to the age of potential adult enrollees. Other relationships were less anticipated: The 5% cluster of faculty emerged above the 10% cluster in both proponence and usage as regards varying course structure according to class needs, and, in usage only, for varying faculty role according to class needs. The cumulative, separate variation of the 5% and 15% clusters of faculty is sufficient to be evident at the Section III subtotal level, where both have significantly higher scores than the 10% cluster.

In two other places--concerning the supervising of independent study and the teaching of courses which have an experiential-learning component--the 5% cluster of faculty has a similar higher/lower proponence relationship to the 10% cluster. In a reversal of that relationship, the 10% cluster of faculty has a significantly higher usage score for work with adult students in government organizations.

Strengthened Findings. The earlier emergence of EDU and HSC as faculty units differing in usage of instructional modes was underscored statistically when the two were reconceptualized as the 15% cluster. Confirmation can be drawn from the subtotal level as well as from the vantage point of four individual items: off-campus teaching, evening/weekend teaching, and teaching continuing-education courses in self-/unit-initiated and response-to-demand classifications.

Obscured Finding. Compressing nine subgroups into three clusters obscured only one minor observation which emerged from the earlier analysis, that the Management faculty's proponence score is significantly lower than others concerning the positive consideration of adult-student experience. When MGT was combined with three other faculty units to form the 10% cluster, that variation was no longer identifiable statistically.

Gender

The examination of faculty proponence and usage according to gender permitted adding two practices to the list of areas of significant variation, and three other practices to be seen from an additional perspective: For the practice of varying delivery modes in accordance with diverse learning preferences in a class, the Female subgroup's proponence and usage scores are significantly higher than those of the Male subgroup. The Female subgroup is significantly higher in usage of the practices of giving positive consideration to an adult prospective student's age and experience, and of varying course structure according to class needs. The Male subgroup score is significantly higher in proponence for working with adult students in organizations other than those named in four preceding categories in the survey instrument. (This is a weak finding, because the nature of the other organizations is not specified in the wording of the item.)

Academic Rank

A half-dozen findings emerged from analyzing data according to faculty rank; they are scattered enough to make generalizing tenuous. Several findings pertain to practices not previously highlighted as areas of variation: The Associate Professor subgroup is significantly higher in proponence than the Professor subgroup for helping students develop portfolios which document college-level learning acquired outside collegiate institutions, and for including on faculty-discussion agendas the topic of how students in general learn. The Professor subgroup was statistically moved to the dominant position in two cases: in proponence for participating in local workshops or conferences designed to broaden faculty knowledge about student/adult-student learning and assessment, and in usage for working with University Without Walls students.

Teaching Level

The least clear influence of a subgroup characteristic on findings is that of teaching level, partly because, as noted earlier, the systematic sampling process drew some respondents who were not teaching undergraduates at the time of the survey. The two who were not teaching at all are represented in proponence data but not in usage scores. Analyses which placed the Graduate Only subgroup significantly above the Undergraduate Only and Undergraduate/Graduate subgroups are appropriately marked in Table 16 but are not discussed in this narrative, which is focused on adult undergraduates (see Hindsights, Appendix F).

This elimination process left only two observations about the influence of teaching level on proponence and usage. At the subtotal level for Instructional Modes, statistical analysis pointed to significant differences in usage according to teaching level, but did not specify the subgroup(s) of greatest influence on that variation. Concerning evening/weekend teaching, the Undergraduate/Graduate faculty subgroup's usage score is significantly higher than the Undergraduate Only score.

Usage-Only Items

The three practices grouped under Recognition and the six in the optional Student Development Approach section differ from those in the rest of the faculty instrument in several ways. Only one question (beginning "Have you . . . ") was attached to each item. A five-year time span was given as the period over which the respondent was to reflect upon involvement with the practices; thus these responses carry a somewhat wider "time slice" connotation than do other data. Two activities--receiving recognition through the faculty reward system and from outside sources--are not generally within the faculty member's control in the customary sense of "usage." More than half the faculty respondents omitted the optional section; this signifies that generalizing about Section VII practices should be done with care. As a reminder, where figures for the usage-only sections are displayed in Tables 14a-16a, the percentages of blanks for each item are shown along with the usual figures for "Yes" responses.

Recognition for Work with Adult Students. At the summary level for Section VI (see Table 14a), the Education faculty subgroup reported affirmatively a significantly higher percentage of times than did three other school-college-faculty units. The greatest single-item influence on this variation was the response about mentioning work with adult students in annual faculty reports. In the enrollment-cluster configuration of data (see Table 15a), Health Sciences faculty influence was added to Education's as the 15% cluster, whose scores are significantly higher than those of the 5% and 10% clusters, both at the summary point and for the annual-report item. The 15% cluster's report of recognition from sources outside the university is also significantly higher than that of the 10% cluster.

Little new information was added to the "recognition" results from redistributing responses across gender, rank, and teaching-level categories (see Table 16a).

Student Development Approach. The percentage of omissions for the six optional items is a consistent 52.7%, suggesting that the same 43 faculty probably completed the set. Findings are concentrated in two aggregations of data: school-college-faculty unit and adult-enrollment cluster. In the latter configuration differences accumulated enough to be identifiable at the subtotal level: The score of faculty in the 15% cluster is significantly higher than scores of the 5% and 10% clusters for overall usage of developmental approaches. The relationship holds individually for four of the six items, as shown in Table 15a. For usage of moral/ethical development approaches to course design, the 10% cluster's score is significantly higher than the 5% cluster's score.

When the three clusters are broken into school-college-faculty units (Table 14a), Health Sciences faculty have the significantly greater influence on usage of three developmental practices related to course design. One finding of gender influence concludes the list: The score of the Female faculty subgroup for usage of the moral/ethical approach to course design is significantly higher than the Male subgroup score (Table 16a).

Proponence and Usage According to Academic Advisor Characteristics

The instrument sent to academic advisors is the shortest of the three survey forms sent to university personnel. (See pages 137-139 for certain aspects of preparation and analysis of data which apply to the advisor group as well as to the unit head and faculty groups.)

Academic advisors were asked to respond to proponence and usage questions concerning 35 items of practice grouped under four headings: Practices Pertaining to Availability of Advising, Credit Evaluation

Table 14
Proponence and Usage of Faculty (n=91) According to School, College, and Faculty Affiliation

	PROPONENCE ("Are you a proponent of this practice?")										USAGE ("Is this your practice?")									
	HFA	NSM	SBS	EDU	ENG	FNR	HSC	MGT	PHE	ALL	HFA	NSM	SBS	EDU	ENG	FNR	HSC	MGT	PHE	ALL
N=	16	19	18	6	7	16	4	4	1*	91	16	19	18	6	7	16	4	4	1*	91
SECTION I: Practices Pertaining to Instructional Modes																				
Corresp teaching	31.3	21.1	16.7	33.3	14.3	0	25.0	0	-	18.7	6.3	0	0	0	0	0	0	0	-	1.1
Indep study superv	81.3	89.5	100.0	100.0	85.7	93.8	100.0	100.0	-	92.3	68.8	68.4	88.9	100.0	71.4	75.0	100.0	100.0	-	79.1
Off-campus teaching	56.3	63.2	66.7	83.3	71.4	75.0	50.0	25.0	-	64.8	18.8	5.3	11.1	66.7	28.6	6.3	25.0	25.0	-	16.5
Eve/weekend teaching	68.8	100.0	83.3	100.0	71.4	75.0	100.0	100.0	-	84.6	37.5	42.1	33.3	83.3	28.6	0	50.0	75.0	-	35.2
Con Ed (self-init´d)	75.0	89.5	88.9	100.0	85.7	93.8	100.0	75.0	-	87.9	31.3	5.3	5.6	83.3	28.6	25.0	75.0	25.0	-	24.2
Con Ed (response)	62.5	89.5	88.9	100.0	85.7	75.0	75.0	75.0	-	81.3	6.3	0	11.1	50.0	14.3	0	25.0	0	-	8.8
Indiv´z´d contract	81.3	78.9	88.9	100.0	85.7	62.5	100.0	100.0	-	82.4	50.0	52.6	72.2	66.7	42.9	43.8	100.0	75.0	-	57.1
Experiential lrng	75.0	73.7	88.9	100.0	85.7	93.8	100.0	100.0	-	85.7	37.5	42.1	55.6	100.0	57.1	62.5	75.0	75.0	-	54.9
Competency-based	43.8	52.6	72.2	66.7	71.4	68.8	100.0	25.0	-	61.5	12.5	26.3	33.3	50.0	57.1	6.3	50.0	0	-	25.3
Interdis course	81.3	94.7	100.0	100.0	100.0	87.5	100.0	100.0	-	93.4	37.5	52.6	55.6	50.0	28.6	43.8	75.0	25.0	-	46.2
Work with UWW stu	81.3	73.7	88.9	100.0	57.1	68.8	100.0	100.0	-	80.2	31.3	21.1	61.1	33.3	42.9	25.0	75.0	50.0	-	37.4
SECTION SUBTOTALS	67.0	75.1	80.3	89.4	74.0	72.2	86.4	72.7	-	75.7	30.7	28.7	38.9	62.1	36.4	26.1	59.1	40.9	-	35.1

(continued)

Table 14, continued

	PROPONENCE										USAGE									
	HFA	NSM	SBS	EDU	ENG	FNR	HSC	MGT	PHE	ALL	HFA	NSM	SBS	EDU	ENG	FNR	HSC	MGT	PHE	ALL
N=	16	19	18	6	7	16	4	4	1*	91	16	19	18	6	7	16	4	4	1*	91
SECTION IV: Faculty Development Practices																				
Conf: Student lrng	50.0	63.2	77.8	83.3	85.7	81.3	75.0	75.0	-	70.3	31.3	15.8	27.8	16.7	0	12.5	25.0	25.0	-	19.8
Conf: Adult lrng	50.0	63.2	77.8	100.0	85.7	81.3	75.0	25.0	-	69.2	12.5	5.3	11.1	16.7	0	0	25.0	25.0	-	8.8
Conf: Stu assessmt	50.0	47.4	72.2	66.7	85.7	75.0	75.0	25.0	-	61.5	18.8	10.5	22.2	16.7	0	25.0	25.0	0	-	16.5
Local conf particpn	56.3	63.2	77.8	83.3	71.4	87.5	100.0	50.0	-	71.4	6.3	26.3	16.7	16.7	14.3	31.3	50.0	0	-	19.8
Leadership efforts	62.5	47.4	66.7	83.3	42.9	68.8	75.0	25.0	-	59.3	0	5.3	5.6	16.7	0	12.5	25.0	25.0	-	7.7
Reading: adult stu	56.3	57.9	61.1	83.3	85.7	75.0	75.0	25.0	-	63.7	$\underline{0}$	21.1	11.1	$\boxed{50.0}$	0	$\underline{6.3}$	25.0	0	-	12.1
SECTION SUBTOTALS	54.2	57.0	72.2	83.3	76.2	78.1	79.2	37.5	-	65.9	11.5	14.0	15.7	22.2	2.4	14.6	29.2	12.5	-	14.1
SECTION V: Service and Research																				
Adult stu: bus/ind	56.3	84.2	66.7	66.7	85.7	75.0	75.0	50.0	-	70.3	12.5	10.5	27.8	16.7	57.1	31.3	50.0	25.0	-	24.2
Adult stu: hum serv	56.3	78.9	83.3	66.7	71.4	75.0	75.0	50.0	-	71.4	$\underline{\underline{6.3}}$	$\underline{\underline{0}}$	$\boxed{38.9}$	33.3	$\underline{0}$	$\underline{\underline{6.3}}$	$\boxed{75.0}$	25.0	-	16.5
Adult stu: govt org	56.3	84.2	77.8	66.7	85.7	87.5	75.0	50.0	-	74.7	6.3	10.5	22.2	33.3	28.6	43.8	75.0	25.0	-	24.2
Adult stu: con ed	56.3	84.2	61.1	50.0	85.7	75.0	75.0	25.0	-	67.0	12.5	0	22.2	0	14.3	0	25.0	0	-	8.8
Adult stu: oth orgs	50.0	84.2	44.4	16.7	71.4	68.8	75.0	50.0	-	59.3	12.5	15.8	22.2	16.7	0	18.8	50.0	25.0	-	17.6
Adult stu: research	50.0	52.6	61.1	66.7	42.9	81.3	75.0	50.0	-	59.3	12.5	10.5	16.7	33.3	0	12.5	25.0	0	-	13.2
SECTION SUBTOTALS	54.2	78.1	65.7	55.6	73.8	77.1	75.0	45.8	-	67.0	10.4	7.9	25.0	22.2	16.7	18.8	50.0	16.7	-	17.4

(continued)

Table 14, continued

	PROPONENCE										USAGE									
	HFA	NSM	SBS	EDU	ENG	FNR	HSC	MGT	PHE	ALL	HFA	NSM	SBS	EDU	ENG	FNR	HSC	MGT	PHE	ALL
N=	16	19	18	6	7	16	4	4	1*	91	16	19	18	6	7	16	4	4	1*	91
SECTION II: Academic Advising and Support Practices																				
Consider adult age	68.8	52.6	61.1	66.7	42.9	56.3	75.0	25.0	-	57.1	56.3	42.1	55.6	83.3	42.9	43.8	100.0	25.0	-	52.7
Consider experience	81.3	78.9	88.9	83.3	71.4	87.5	100.0	0	-	79.1	68.8	73.7	72.2	83.3	71.4	68.8	100.0	0	-	70.3
Portfolio help	56.3	57.9	72.2	83.3	42.9	68.8	75.0	25.0	-	61.5	6.3	21.1	38.9	33.3	28.6	25.0	25.0	25.0	-	24.2
Flexible curriculum	87.5	100.0	83.3	83.3	71.4	93.8	75.0	100.0	-	89.0	75.0	73.7	72.2	66.7	71.4	68.8	75.0	75.0	-	72.5
Indiv'z'd planning	87.5	94.7	88.9	100.0	85.7	93.8	50.0	100.0	-	90.1	56.3	36.8	61.1	33.3	57.1	37.5	50.0	50.0	-	47.3
Eve/weekend advsg	43.8	68.4	72.2	83.3	71.4	81.3	75.0	50.0	-	67.0	25.0	57.9	55.6	83.3	57.1	50.0	50.0	75.0	-	51.6
Off-campus advsg	43.8	52.6	61.1	83.3	42.9	43.8	50.0	50.0	-	52.7	18.8	10.5	27.8	50.0	14.3	31.3	25.0	50.0	-	24.2
SECTION SUBTOTALS	67.0	72.2	75.4	83.3	61.2	75.0	71.4	50.0	-	71.0	43.8	45.1	54.8	61.9	49.0	58.2	60.7	42.9	-	49.0
SECTION III: Course Design and Delivery Practices																				
Incorp life exprce	43.8	52.6	77.8	100.0	42.9	56.3	100.0	50.0	-	61.5	31.3	15.8	44.4	83.3	14.3	31.3	75.0	50.0	-	36.3
Vary structure	62.5	73.7	88.9	100.0	71.4	81.3	100.0	100.0	-	80.2	43.8	52.6	77.8	100.0	57.1	68.8	75.0	75.0	-	64.8
Vary faculty role	68.8	73.7	94.4	100.0	71.4	75.0	100.0	100.0	-	81.3	43.8	57.9	77.8	100.0	57.1	75.0	100.0	75.0	-	68.1
Vary delivery mode	93.8	84.2	77.8	100.0	57.1	75.0	100.0	100.0	-	83.5	81.3	63.2	66.7	100.0	57.1	50.0	100.0	100.0	-	70.3
SECTION SUBTOTALS	67.2	71.1	84.7	100.0	60.7	71.9	100.0	87.5	-	76.6	50.0	47.4	66.7	95.8	46.4	56.2	87.5	75.0	-	59.9

(continued)

Table 14, continued

	PROPONENCE										USAGE									
	HFA	NSM	SBS	EDU	ENG	FNR	HSC	MGT	PHE	ALL	HFA	NSM	SBS	EDU	ENG	FNR	HSC	MGT	PHE	ALL
N=	16	19	18	6	7	16	4	4	1*	91	16	19	18	6	7	16	4	4	1*	91
TOTALS, SECS. I - V	62.5	71.4	75.8	82.4	70.2	74.6	81.6	58.8	-	71.6	28.7	28.0	38.9	52.0	30.7	30.5	55.9	36.0	-	** 34.0

*The School of Physical Education (PHE) is represented in faculty data by only one respondent. For confidentiality reasons, PHE figures were excluded from Table 11.

Note. Figures shown are percentages of affirmative responses. Analyses of variance (*F* tests) were conducted on numbers of affirmative responses at $p \leq .05$. *F* tests were distributed on c-1 and n-c-1 degrees of freedom, where n is the total sample size and c is the number of classifications.

**Analysis of variance indicated significant differences among subgroups in total usage scores, but *a posteriori* contrast tests did not pinpoint subgroups having greatest influence on those differences.

Symbols. In any one row (between vertical lines) a figure in a rectangle is significantly different from (higher or lower than) the underlined figure(s). A figure in a dashed-line rectangle is significantly different from (higher or lower than) the figure(s) underscored with dashes. (See pages 94-96 for rationale of symbol system.)

Abbreviations. School, college, and faculty abbreviations are defined on page 12. Full wording of practices listed in the faculty instrument is provided in Table 4, page 113, and Table 8, page 128.

Table 14a
Percentages of "Yes" Responses of Faculty to "Usage-Only" Questions According to School, College, and Faculty Affiliation; Percentage of Blanks of Whole Group

	HFA	NSM	SBS	EDU	ENG	FNR	HSC	MGT	PHE	ALL	
N=	16	19	18	6	7	16	4	4	1*	91	
	% Yes	% Yes	% Yes	% Yes	% Yes	% Yes	% Yes	% Yes	% Yes	% Yes	(% Blank)
SECTION VI: Recognition of Work with Adult Students											
Mentioned work with adult students in faculty report?	25.0	10.5	27.8	83.3	28.6	31.2	50.0	0	-	27.4	(12.1)
Received recognition via faculty reward system?	0	0	5.6	16.7	14.3	6.3	0	0	-	4.4	(15.4)
Received recognition from sources outside university?	6.3	0	11.1	33.3	0	25.0	25.0	0	-	11.0	(13.2)
SECTION SUBTOTALS	10.4	3.5	14.8	44.4	14.3	20.8	25.0	0	-	14.3	(13.6)
SECTION VII: Student Development Approach (optional section)											
Designed or revised course to challenge students to											
higher cognitive development?	31.3	31.6	16.7	33.3	42.9	25.0	75.0	25.0	-	29.7	(52.7)
higher ego/personality development?	18.8	15.8	0	33.3	14.3	6.3	75.0	0	-	14.3	(52.7)
higher moral/ethical development?	31.3	15.8	5.6	33.3	14.3	6.3	75.0	0	-	17.6	(52.7)
Designed or revised course to											
respond to learning styles?	18.8	26.3	11.1	50.0	28.6	12.5	50.0	0	-	20.9	(52.7)
develop internal evaluation?	25.0	26.3	11.1	16.7	28.6	18.8	75.0	25.0	-	23.1	(52.7)
respond to needs for application?	25.0	10.5	11.1	50.0	0	25.0	75.0	25.0	-	20.9	(52.7)
SECTION SUBTOTALS	25.0	21.1	9.3	36.1	21.4	15.6	70.8	12.5	-	21.1	(52.7)

See Table 14 footnotes (page 172) for explanation of system of highlighting significantly differing figures.

Table 15
Proponence and Usage of Faculty (n=91) According to Three Adult-Enrollment Clusters

	PROPONENCE ("Are you a proponent of this practice?")				USAGE ("Is this your department's practice?")			
	5% Adults	10% Adults	15% Adults	Total	5% Adults	10% Adults	15% Adults	Total
N=	39	42	10	91	39	42	19	91
SECTION I: Practices Pertaining to Instructional Modes								
Corresp teaching	10.3	23.8	30.0	18.7	0	2.4	0	1.1
Indep study superv	$\boxed{97.4}$	$\underline{85.7}$	100.0	92.3	84.6	69.0	100.0	79.1
Off-campus teaching	66.7	61.9	70.0	64.8	$\underline{10.3}$	$\underline{14.3}$	$\boxed{50.0}$	16.5
Eve/weekend teaching	82.1	83.3	100.0	84.6	$\underline{23.1}$	38.1	$\boxed{70.0}$	35.2
Con Ed (self-init'd)	89.7	83.3	100.0	87.9	$\underline{15.4}$	$\underline{19.0}$	$\boxed{80.0}$	24.2
Con Ed (response)	82.1	78.6	90.0	81.3	$\underline{5.1}$	$\underline{4.8}$	$\boxed{40.0}$	8.8
Indiv'z'd contract	79.5	81.0	100.0	82.4	59.0	50.0	80.0	57.1
Experiential lrng	$\boxed{92.3}$	$\underline{76.2}$	100.0	85.7	59.0	$\underline{42.9}$	$\boxed{90.0}$	54.9
Competency-based	66.7	52.4	80.0	61.5	17.9	26.2	50.0	25.3
Interdis course	94.9	90.5	100.0	93.4	46.2	42.9	60.0	46.2
Work with UWW stu	82.1	73.8	100.0	80.2	43.6	28.6	50.0	37.4
SECTION SUBTOTALS	76.7	71.9	88.2	75.7	$\underline{33.1}$	$\underline{30.7}$	$\boxed{60.9}$	35.1
SECTION II: Academic Advising and Support Practices								
Consider adult age	53.8	57.1	70.0	57.1	$\underline{48.7}$	$\underline{47.6}$	$\boxed{90.0}$	52.7
Consider experience	76.9	78.6	90.0	79.1	64.1	71.4	90.0	70.3
Portfolio help	64.1	54.8	80.0	61.5	30.8	16.7	30.0	24.2
Flexible curriculum	89.7	90.5	80.0	89.0	71.8	73.8	70.0	72.5
Indiv'z'd planning	92.3	90.5	80.0	90.1	48.7	47.6	40.0	47.3
Eve/weekend advsg	71.8	59.5	80.0	67.0	53.8	45.2	70.0	51.6
Off-campus advsg	53.8	47.6	70.0	52.7	30.8	14.3	40.0	24.2
SECTION SUBTOTALS	71.8	68.4	78.6	71.0	49.8	45.2	61.4	49.0

(continued)

Table 15, continued

	PROPONENCE				USAGE			
	5% Adults	10% Adults	15% Adults	Total	5% Adults	10% Adults	15% Adults	Total
N=	39	42	10	91	39	42	19	91
SECTION III: Course Design and Delivery Practices								
Incorp life exprce	66.7	47.6	100.0	61.5	41.0	21.4	80.0	36.3
Vary structure	87.2	69.0	100.0	80.2	74.4	50.0	90.0	64.8
Vary faculty role	87.2	71.4	100.0	81.3	76.9	52.4	100.0	68.1
Vary delivery mode	79.5	83.3	100.0	83.5	64.1	69.0	100.0	70.3
SECTION SUBTOTALS	80.1	67.9	100.0	76.6	64.1	48.2	92.5	59.9
SECTION IV: Faculty Development Practices								
Conf: Student lrng	76.9	61.9	80.0	70.3	20.5	19.0	20.0	19.8
Conf: Adult lrng	71.8	61.9	90.0	69.2	7.7	7.1	20.0	8.8
Conf: Stu assessmt	66.7	54.8	70.0	61.5	20.5	11.9	20.0	16.5
Local conf particpn	76.9	61.9	90.0	71.4	20.5	16.7	30.0	19.8
Leadership efforts	61.5	52.4	80.0	59.3	10.3	2.4	20.0	7.7
Reading: adult stu	61.5	61.9	80.0	63.7	7.7	9.5	40.0	12.1
SECTION SUBTOTALS	69.2	59.1	81.7	65.9	14.5	11.1	25.0	14.1
SECTION V: Service and Research								
Adult stu: bus/ind	66.7	73.8	70.0	70.3	28.2	19.0	30.0	24.2
Adult stu: hum serv	74.4	69.0	70.0	71.4	23.1	2.4	50.0	16.5
Adult stu: govt org	76.9	73.8	70.0	74.7	30.8	11.9	50.0	24.2
Adult stu: con ed	61.5	73.8	60.0	67.0	10.3	7.1	10.0	8.8
Adult stu: oth orgs	53.8	69.0	40.0	59.3	20.5	11.9	30.0	17.6
Adult stu: research	66.7	50.0	70.0	59.3	12.8	9.5	30.0	13.2
SECTION SUBTOTALS	66.7	68.2	63.3	67.0	20.9	10.3	33.3	17.4
TOTALS, SECS. I - V	73.0	67.8	82.1	71.6	34.8	28.7	53.5	34.0

See Table 14 footnotes (page 172) for explanation of figures displayed.
See pages 94-96 for rationale of symbol system. Composition of adult-enrollment clusters is defined on page 163. Full wording of practices is provided in Table 4, page 113, and Table 8, page 128.

Table 15a
Percentages of "Yes" Responses of Faculty to "Usage-Only" Questions According to Adult-Enrollment Cluster; Percentages of Blanks of Whole Group

	5% Adults % Yes	10% Adults % Yes	15% Adults % Yes	Total % Yes	Total (% Blank)
SECTION VI: Recognition of Work with Adult Students					
Mentioned work with adult students in faculty report?	$\underline{25.6}$	$\underline{19.0}$	$\boxed{70.0}$	27.4	(12.1)
Received recognition via faculty reward system?	5.1	2.4	10.0	4.4	(15.4)
Received recognition from sources outside university?	15.4	$\underline{2.4}$	$\boxed{30.0}$	11.0	(13.2)
SECTION SUBTOTALS	$\underline{15.4}$	$\underline{7.9}$	$\boxed{36.7}$	14.3	(13.6)
SECTION VII: Student Development Approach (optional section)					
Designed or revised course to challenge students to					
higher cognitive development?	20.5	33.3	50.0	29.7	(52.7)
higher ego/personality development?	$\underline{2.6}$	$\underline{16.7}$	$\boxed{50.0}$	14.3	(52.7)
higher moral/ethical development?	$\underline{\underline{5.1}}$	$\boxed{21.4}$	$\boxed{50.0}$	17.6	(52.7)
Designed or revised course to					
respond to learning styles?	$\underline{10.3}$	23.8	$\boxed{50.0}$	20.9	(52.7)
develop internal evaluation?	$\underline{15.4}$	$\underline{26.2}$	$\boxed{40.0}$	23.2	(52.7)
respond to needs for application?	17.9	22.6	50.0	21.1	(52.7)
SECTION SUBTOTALS	$\underline{12.0}$	$\underline{22.6}$	$\boxed{50.0}$	21.1	(52.7)

See Table 14 footnotes (page 172) for explanation of system of highlighting significantly differing figures.

Table 16

Proponence and Usage of Faculty (n=91) According to Gender, Rank, and Teaching Level

	PROPONENCE ("Are you a proponent of this practice?")									USAGE ("Is this your practice?")								
	GENDER		ACADEMIC RANK			TEACHING LEVEL				GENDER		ACADEMIC RANK			TEACHING LEVEL			
	M	F	PROF	ASSO	ASST	UG	UG/G	G	ALL	M	F	PROF	ASSO	ASST	UG	UG/G	G	ALL
N=	75	16	43	27	21	11	70	8	91	75	16	11	27	21	11	70	8	91
SECTION I: Practices Pertaining to Instructional Modes																		
Corresp teaching	17.3	25.0	11.6	22.2	28.6	9.1	21.4	12.5	18.7	1.3	0	0	3.7	0	0	1.4	0	1.1
Indep study superv	93.3	87.5	86.0	100.0	95.2	100.0	90.0	100.0	92.3	78.7	81.3	76.7	92.6	66.7	81.8	80.0	87.5	79.1
Off-campus teaching	68.0	50.0	58.1	66.7	76.2	45.5	65.7	75.0	64.8	16.0	18.8	14.0	25.9	9.5	9.1	15.7	37.5	16.5
Eve/weekend teaching	86.7	75.0	83.7	88.9	81.0	81.8	82.9	100.0	84.6	34.7	37.5	39.5	29.6	33.3	0	40.0	50.0	35.2
Con Ed (self-init´d)	85.3	100.0	79.1	96.3	95.2	90.9	85.7	100.0	87.9	22.7	31.3	20.9	25.9	28.6	36.4	21.4	37.5	24.2
Con Ed (response)	78.7	93.8	69.8	85.2	100.0	63.6	81.4	100.0	81.3	9.3	6.3	9.3	3.7	14.3	9.1	7.1	25.0	8.8
Indiv´z´d contract	80.0	93.8	74.4	96.3	81.0	72.7	84.3	100.0	82.4	53.3	75.0	60.5	55.6	52.4	54.5	55.7	87.5	57.1
Experiential lrng	84.0	93.8	76.7	92.6	95.2	100.0	81.4	100.0	85.7	54.7	56.3	48.8	66.7	52.4	72.7	52.9	62.5	54.9
Competency-based	62.7	56.3	62.8	51.9	71.4	54.5	61.4	75.0	61.5	24.0	31.3	27.9	14.8	33.3	18.2	24.3	50.0	25.3
Interdis course	92.0	100.0	93.0	96.3	90.5	72.7	95.7	100.0	93.4	46.7	43.8	53.5	44.4	33.3	18.2	52.9	37.5	46.2
Work with UWW stu	77.3	93.8	74.4	88.9	81.0	63.6	82.9	87.5	80.2	38.7	31.3	44.2	44.4	14.3	54.5	35.7	37.5	37.4
SECTION SUBTOTALS	75.0	79.0	70.0	80.5	81.4	68.6	75.7	86.4	75.7	34.5	37.5	35.9	37.0	30.7	32.2*	35.2*	46.6*	35.1

(continued)

Table 16, continued

	PROPONENCE									USAGE								
	GENDER		ACADEMIC RANK			TEACHING LEVEL				GENDER		ACADEMIC RANK			TEACHING LEVEL			
	M	F	PROF	ASSO	ASST	UG	UG/G	G	ALL	M	F	PROF	ASSO	ASST	UG	UG/G	G	ALL
N=	75	16	43	27	21	11	70	8	91	75	16	11	27	21	11	70	8	91
SECTION II: Academic Advising and Support Practices																		
Consider adult age	53.3	75.0	67.4	48.1	47.6	72.7	52.9	62.5	57.1	48.0	75.0	60.5	48.1	42.9	54.5	54.3	50.0	52.7
Consider experience	76.0	93.8	81.4	77.8	76.2	81.8	77.1	87.5	79.1	65.3	93.8	72.1	70.4	66.7	63.6	71.4	87.5	70.3
Portfolio help	57.3	81.3	48.8	77.8	66.7	54.5	60.0	75.0	61.5	25.3	18.8	27.9	25.9	14.3	36.4	22.9	25.0	24.2
Flexible curriculum	89.3	87.5	83.7	96.3	90.5	100.0	87.1	87.5	89.0	69.3	87.5	72.1	77.8	66.7	72.7	75.7	62.5	72.5
Indiv´z´d planning	88.0	100.0	86.0	92.6	95.2	90.9	88.6	100.0	90.1	48.0	43.8	53.5	44.4	38.1	63.6	47.1	37.5	47.3
Eve/weekend advsg	69.8	59.3	70.7	50.0	67.0	54.5	65.7	87.5	67.0	53.3	43.8	55.8	44.4	52.4	27.3	52.9	87.5	51.6
Off-campus advsg	57.3	31.3	53.5	51.9	52.4	36.4	54.3	62.5	52.7	24.0	25.0	30.2	25.9	9.5	27.3	24.3	25.0	24.2
SECTION SUBTOTALS	70.3	74.1	70.1	72.0	71.4	70.1	69.4	80.4	71.0	47.6	55.4	53.2	48.1	41.5	49.3	50.0	53.6	49.0
SECTION III: Course Design and Delivery Practices																		
Incorp life exprce	57.3	81.3	48.8	77.8	66.7	45.5	61.4	75.0	61.5	32.0	56.3	32.6	48.1	28.6	27.3	37.1	50.0	36.3
Vary structure	78.7	87.5	76.7	81.5	85.7	72.7	81.4	87.5	80.2	60.0	87.5	62.8	66.7	66.7	63.6	67.1	62.5	64.8
Vary faculty role	80.0	87.5	76.7	85.2	85.7	72.7	82.9	87.5	81.3	64.0	87.5	65.1	74.1	66.7	54.5	71.4	75.0	68.1
Vary delivery mode	80.0	100.0	74.4	92.6	90.5	81.8	85.7	75.0	83.5	64.0	100.0	58.1	85.2	76.2	54.5	75.7	62.5	70.3
SECTION SUBTOTALS	74.0	89.1	69.2	84.3	82.1	68.2	77.9	81.2	76.6	55.0	82.8	54.7	68.5	59.5	50.0	62.9	62.5	59.9

(continued)

Table 16, continued

	PROPONENCE									USAGE								
	GENDER		ACADEMIC RANK			TEACHING LEVEL				GENDER		ACADEMIC RANK			TEACHING LEVEL			
	M	F	PROF	ASSO	ASST	UG	UG/G	G	ALL	M	F	PROF	ASSO	ASST	UG	UG/G	G	ALL
N=	75	16	43	27	21	11	70	8	91	75	16	11	27	21	11	70	8	91
SECTION IV: Faculty Development Practices																		
Conf: Student lrng	69.3	75.0	58.1	85.2	76.2	63.6	70.0	75.0	70.3	17.3	31.3	20.9	18.5	19.0	27.3	21.4	0	19.8
Conf: Adult lrng	69.3	68.8	58.1	81.5	76.2	63.6	68.6	75.0	69.2	6.7	18.8	7.0	11.1	9.5	18.2	8.6	0	8.8
Conf: Stu assessmt	60.0	68.8	53.5	70.4	66.7	36.4	62.9	75.0	61.5	16.0	18.8	20.9	18.5	4.8	27.3	17.1	0	16.5
Local conf particpn	72.0	68.8	55.8	88.9	81.0	63.6	71.4	75.0	71.4	20.0	18.8	20.9	22.2	14.3	18.2	22.9	0	19.8
Leadership efforts	58.7	62.5	62.8	63.0	47.6	72.7	58.6	62.5	59.3	8.0	6.3	7.0	11.1	4.8	9.1	8.6	0	7.7
Reading: adult stu	64.0	62.5	62.8	66.7	61.9	54.5	67.1	50.0	63.7	9.3	25.0	14.0	11.1	9.5	9.1	11.4	25.0	12.1
SECTION SUBTOTALS	65.6	67.7	58.5	75.9	68.3	59.1	66.4	68.8	65.9	12.9	19.8	15.1	15.4	10.3	18.2	15.0	4.2	14.1
SECTION V: Service and Research																		
Adult stu: bus/ind	72.0	62.5	67.4	74.1	71.4	63.6	70.0	87.5	70.3	25.3	18.8	27.9	18.5	23.8	18.2	22.9	50.0	24.2
Adult stu: hum serv	72.0	68.8	69.8	74.1	71.4	63.6	72.9	75.0	71.4	14.7	25.0	23.3	11.1	9.5	9.1	14.3	50.0	16.5
Adult stu: govt org	74.7	75.0	69.8	77.8	81.0	63.6	74.3	87.5	74.7	26.7	12.5	32.6	22.2	9.5	9.1	24.3	50.0	24.2
Adult stu: con ed	70.7	50.0	60.5	70.4	76.2	63.6	64.3	87.5	67.0	9.3	6.3	11.6	3.7	9.5	9.1	10.0	0	8.8
Adult stu: oth orgs	64.0	37.5	55.8	63.0	61.9	45.5	60.0	75.0	59.3	20.0	6.3	20.9	18.5	9.5	9.1	17.1	37.5	17.6
Adult stu: research	56.0	75.0	48.8	63.0	76.2	45.5	58.6	75.0	59.3	13.3	12.5	16.3	14.8	4.8	0	12.9	37.5	13.2
SECTION SUBTOTALS	68.2	61.4	62.0	70.4	73.0	57.6	66.7	81.3	67.0	18.2	13.5	22.1	14.8	11.1	9.1	16.9	37.5	17.4

(continued)

Table 16, continued

	PROPONENCE									USAGE								
	GENDER		ACADEMIC RANK			TEACHING LEVEL				GENDER		ACADEMIC RANK			TEACHING LEVEL			
	M	F	PROF	ASSO	ASST	UG	UG/G	G	ALL	M	F	PROF	ASSO	ASST	UG	UG/G	G	ALL
N=	75	16	43	27	21	11	70	8	91	75	16	11	27	21	11	70	8	91
TOTALS, SECS. I - V	71.4	74.1	66.5	76.6	75.6	65.2	71.4	80.5	71.6	32.9	39.1	35.6	35.3	29.3	31.3	34.7	40.8	34.0

Note. Figures shown are percentages of affirmative responses. Analyses of variance (F tests) were conducted on numbers of affirmative responses at $p \leq .05$. F tests were distributed on c-1 and n-c-1 degrees of freedom, where n is the total sample size and c is the number of classifications.

*Analysis of variance indicated significant differences among subgroups in Sec. I subtotals, but a posteriori contrast tests did not pinpoint subgroups having greatest influence on those differences.

Symbols. In any one row (between vertical lines) a figure in a rectangle is significantly different from (higher or lower than) the underlined figure(s). (See pages 94-96 for rationale of symbol system.)

Abbreviations. Full wording of practices listed in the faculty instrument is provided in Table 4, page 113, and Table 8, page 128.

Table 16a
Percentages of "Yes" Responses of Faculty to "Usage-Only" Questions According to Gender, Rank, and Teaching Level; Percentages of Blanks of Whole Group

	GENDER		ACADEMIC RANK			TEACHING LEVEL				
	M	F	PROF	ASSO	ASST	UG	UG/G	G	ALL	
	75	16	43	27	21	11	70	8	91	
	% Yes	% Yes	% Yes	% Yes	% Yes	% Yes	% Yes	% Yes	% Yes	(% Blank)
SECTION VI: Recognition of Work with Adult Students										
Mentioned work with adult students in faculty report?	26.7	31.3	25.6	33.3	23.8	18.2	25.7	50.0	27.4	(12.1)
Received recognition via faculty reward system?	4.0	6.3	$\underline{0}$	3.7	$\boxed{14.3}$	9.1	2.9	12.5	4.4	(15.4)
Received recognition from sources outside university?	12.0	6.3	9.3	14.8	9.5	0	10.0	25.0	11.0	(13.2)
SECTION SUBTOTALS	14.2	14.6	11.6	17.3	15.9	9.0	12.9	29.2	14.3	(13.6)
SECTION VII: Student Development Approach (optional section)										
Designed or revised course to challenge students to										
higher cognitive development?	28.0	37.5	27.9	29.6	33.3	18.2	32.9	25.0	29.7	(52.7)
higher ego/personality development?	12.0	25.0	11.6	11.1	23.8	0	17.1	12.5	14.3	(52.7)
higher moral/ethical development?	$\underline{13.3}$	$\boxed{37.5}$	11.6	22.2	23.8	0	22.9	0	17.6	(52.7)
Designed or revised course to										
respond to learning styles?	17.3	37.5	18.6	18.5	28.6	18.2	22.9	12.5	20.9	(52.7)
develop internal evaluation?	20.0	37.5	20.9	18.5	33.3	18.2	25.7	12.5	23.1	(52.7)
respond to needs for application?	18.7	31.3	18.6	25.9	19.0	18.2	22.9	12.5	20.9	(52.7)
SECTION SUBTOTALS	18.2	34.3	18.2	21.0	27.0	12.1	24.0	12.5	21.1	(52.7)

See Table 14 footnotes (page 172) for explanation of system of highlighting significantly differing figures.

Practices, Data Collection Practices, and Individual Advisor Practices. (For this report, the second section has been more accurately termed, in table headings, Credit Evaluation/Recommendation Practices.) The usage question appended to the first three sections was "Is this your unit's practice?"; a more personal response was sought in the last section by means of "Is this your practice?"

Forty-nine academic advisors, 31 males and 18 females, provided usable responses to the instrument. Thirty-seven are in faculty positions, 12 are in staff positions (hereafter designated as roles). Authority level is represented by the symbols 1-A, advisors with first-line authority and signatory power in large organizational units; 2-A, advisors with second-line authority to those in 1-A or first-line authority in a smaller academic program; 3-A, chief undergraduate advisors for departments and CASIAC; and 3-C, advisors in specialized satellite units (see Participants section of Chapter III). The number of respondents at each level is 1-A, 11; 2-A, 5; 3-A, 38; and 3-C, 5. Their school, college, faculty, or other advising-unit affiliations are listed in the response-rate report at the beginning of this chapter and in Table 17. By self-report, the respondents were placed in one of four "load" categories according to the proportion of adults they customarily advise: No Adults, 6; 1/4 or Fewer, 38; 1/4-1/2, 3; and 1/2 or More, 2.

Advisors in the School of Management and in CASIAC (College of Arts and Sciences Information and Advising Center) are slightly underreperesented in comparison with the numbers of persons surveyed in those units. Males, although they constitute nearly two-thirds of the respondent group, are slightly underrepresented in comparison to females. Advisors at the 3-C level are underrepresented in comparison to those at the other authority levels.

The School of Management and the School of Health and Physical Education are each represented in the data by only one responding advisor. Their responses are included at sectional summary points, in totals for the instrument, and when data are aggregated according to adult-enrollment cluster, adult-advisee load, role, authority level, and gender. When scores are displayed or described according to school, college, faculty, or other advising unit, MGT and PHE are omitted, both for confidentiality reasons and because single-member cells are excluded from analysis of variance procedures.

Academic advisors, on the average, are proponents of almost 75% of the practices named in the advisor instrument and users of more than 50%. This ratio holds for whole-group total scores and at all four sectional summary points (see Table 17). Proponence and usage scores at these summary points are closer to each other, in a fairly uniform pattern, than they were in either the unit-head or faculty data. While response varies within and between subgroups and from practice to practice, such variation is traceable to a few subgroups or a few items of practice, especially where an occasional 0-100% range of scores is noted.

Visual inspection of scores of the whole group across individual items brings out a second outstanding characteristic: Proponence and usage are both relatively high for nearly half the practices in the instrument. The closest "matches" will be listed below. There are also practices for which wide gaps between proponence and usage are apparent; none of the disparities appears to be as extreme, however, as those brought out in the faculty report.

The six types of aggregation of respondent data for which results of analysis are reported here are unit affiliation (school, college, faculty, other advising unit), adult-enrollment cluster, faculty/staff role, adult-advisee load, gender, and authority level. The latter four are treated in descending order by the number of findings which emerged from examination of data in those categories. Subgroup sizes, proponence scores, and usage scores are presented by school, college, faculty, or other advising unit affiliation in Table 17; by adult-enrollment cluster in Table 18; by gender and adult-advisee load in Table 19; and by role and authority level in Table 20.

As the array of symbols marking variation in tables indicates, there are more significant differences in proponence among advisors than among faculty, fewer proponence differences among advisors than among unit heads. Proportionately more of the advisor differences in proponence emerged from the adult-advisee-load aggregation than from any of the other five configurations of data. The number of significant differences in usage among advisors is about equal to that among faculty, but greater than the number among unit heads.

School, College, Faculty, or Other Advising Unit Affiliation

When scores are displayed across 11 organizational units, as they are in Table 17, the closest, most broadly uniform matches between proponence for and usage of a practice can readily be seen. They concern (a) the unit-level practices of advising students about other advising sources, personal counseling sources, and earning credit via independent study, and (b) the individual-advisor-level practices of helping students to plan individualized majors and, in general, to find ways of making the university curriculum more flexible.

There are only four findings of statistically significant differences in proponence scores across the 11 units in this aggregation. In all four cases, either the Natural Sciences and Mathematics advisors or the Social and Behavioral Sciences advisors have a proponence score significantly lower than the scores of most of the other units. For NSM, one finding is at the subtotal level, for Practices Pertaining to the Availability of Advising; the other pertains to a specific practice, collecting academic needs data about the unit's advisees. The SBS findings concern the collection of two kinds of information about the unit's advisees: student descriptive data (such as class status and enrollment status) and data on previous learning experience (such information as transfer credit and credit awarded by examination or equivalency). In usage, the NSM, SBS, and Health Sciences advisors have significantly lower usage scores than several other units for the collection of academic-needs data.

Several sets of such multiple findings of difference for individual data-collection practices emerged, taxing the system of symbols devised to depict such relationships in Table 17. The SBS advisor subgroup is statistically lower-scoring in usage of most of the data-collection practices. HSC advisors are in the significantly lower position for half of the items. The cumulative effect of such differences can be seen in the section subtotal, where SBS, NSM, and HSC usage scores are all significantly lower than those of various other advisor subgroups.

Findings in the Credit Evaluation/Recommendation Practices section also target SBS, NSM, and HSC advisors, along with the Engineering advisors, as having significantly lower scores than other subgroups concerning these practices: advising students about earning credit via continuing-education courses (SBS); via UWW courses (NSM, ENG); and via interdisciplinary courses (HSC). The ENG advisors have a significantly higher usage score than seven other units for advising students about earning credit via media-delivered courses.

Both ENG and the Education advisor subgroup are statistically different from several other units. They have higher usage scores for having persons in the unit who have undergone special training/reading about advising adults. For EDU advisors, this difference and perhaps others not detected at the individual-item level are reflected at the Section I subtotal level.

Of all the variations listed above, only those concerning one subgroup accumulated sufficiently by the total-score point to produce a finding of significant difference: The SBS advisor subgroup has a significantly lower overall usage score than all comparison units except HSC.

Adult-Enrollment Cluster

Academic-advisor data in the previous, 11-unit aggregation were compressed into three clusters corresponding to average percentages of enrolled adult undergraduates. This produced a 5% cluster (FNR + SBS + CAS + PHE + MGT = 16 advisors), a 10% cluster (HFA + NSM + ENG = 21 advisors), and a 15% cluster (EDU + HSC = 6 advisors). While the reduction was undertaken with an intent and in a manner similar to regroupings of unit-head and faculty data, it produced far less beneficial results than those earlier manipulations. Affecting the process was the necessary exclusion of six advisors (in the 11th category, "other advising unit") because their programs are not associated with any one enrollment entity. Figures in Table 18 are thus based on responses of 43 persons instead of 49.

Obscured Finding. Many findings listed under the 11-unit aggregation did not emerge in another form when enrollment clusters became the focus of analysis. No longer detectable were findings concerning differences in usage of credit evaluation/recommendation practices, or most of the findings of difference in usage of data collection practices. One finding obscured formerly detectable extremes: The usage score of advisors in the 15% cluster, statistically higher than the 5% and 10% clusters´ scores for having persons in the unit with special training/reading pertaining to advising adults, has as its components an EDU advisor score of 100% and an HSC advisor score of zero.

New Findings. Four new findings of variation resulted from reducing the data to three clusters. Advisors in the 15% cluster have the significantly higher usage score for evening/weekend advising, off-campus advising, and collection of socioeconomic data about advisees, and concerning individual-advisor usage of special reading about adult students.

Adult-Advisee Load

Examination of advisor data according to the self-reported adult-advisee load produced more findings of proponence differences than any other configuration of the data, and a similar number of findings about usage differences. The broadest indicators are the total scores: The No Adults advisors´ total proponence score is significantly lower than the three other advisee-load groups´ scores. The 1/2 or More Adults advisors have a significantly higher total usage score than the No Adults and 1/4 or Fewer subgroups. The 1/4 or Fewer advisors have a significantly higher total usage score than the No Adults advisors.

Six credit-award practices figured prominently in the examination of advisor data according to adult-advisee load. (They are the same practices singled out for special attention in the analysis of unit-head data.) For unit heads the specific practices at issue are allowing students to apply credit awarded via CLEP, PEP, and CEEB/AP examinations and via equivalency procedures in three specific guides. For advisors the related activity is advising students about the possibility of earning credit in these six ways. As was noted in the unit-head discussion, the extent and nature of non-typical response to these items provide interesting qualifiers of findings. The tally of non-typical responses from advisors about four of the six items--PEP examinations and the three equivalency procedures--indicate some unfamiliarity or uncertainty about these practices; such comments and "blanks" (failures to respond) accounted for from 14% to 22% of the proponence and usage data for these four practices. The findings displayed in Table 19 should be considered in light of these ambiguous or missing data. The No Adults advisors have a significantly lower proponence score than other load subgroups for these practices. On the usage side, the 1/2 or More Adults advisors have the significantly higher score among the four subgroups.

Elsewhere in the instrument data, one finding was somewhat anticipated and one was not anticipated. The usage scores of the two advisor subgroups which see the greater proportions of adult advisees are significantly higher than those of the other two "load" groups concerning the personal practice of taking a leadership role in causing other advisors to broaden their knowledge of adult learners/learning. Not expected was that proponence and usage scores of the No Adults advisors are significantly lower than the others for advising students about earning credit via continuing-education courses.

Role

A consideration of data according to faculty or staff advisor designation ("role") produced findings which are few in number but consistent in direction and level. Every finding placed the Staff subgroup in the higher-scoring position. As shown in Table 20, proponence scores differ significantly at the total point and at three of the four subtotal points, suggesting that smaller differences not detectable statistically at the individual-item level were sufficiently cumulative to register at summary levels. At the item level, three areas of significant variation have in common the acquisition of knowledge about adult learners: having trained persons in the unit, personally taking leadership roles in encouraging such training, and personally reading about adult students.

Gender

Although very little new information resulted from examining advisor data aggregated by gender, the nature of the scattered findings makes them worth noting. All of the findings concern proponence scores, and in each the score of Female advisors is significantly higher than that of Male advisors.

Variation in proponence for individual-advisor practices (Section IV) is evident at the subtotal level in Table 19. Responses to two practices in particular contribute to the summary-point finding: Female advisors score statistically higher for undertaking reading about adult students and for taking a leadership role in encouraging other advisors to broaden their knowledge of adult learners/learning. Female advisors also score significantly higher for having some persons in the unit who have undertaken special training/reading about advising adults, and for advising students about courses having an experiential-learning component.

Authority Level

Contrary to expectations, the aggregating factor of authority level produced almost no findings of significant difference. Those few place the 1-A advisors in the significantly higher-scoring position in relation to one or more of the other three levels (see Table 20).

Two authority-level findings somewhat support results which emerged in all five of the other aggregations. The analysis of variance indicated usage differences among authority levels for undertaking special reading about adult students, but differences were not great enough for one subgroup to be singled out as statistically higher. For having some persons in the unit who have undertaken training/reading about advising adults, the 1-A advisors are highest-scoring subgroup in proponence; the 3-A advisors score lowest in usage.

Table 17
Proponence and Usage of Academic Advisors (n=49)
According to School, College, Faculty, or Other Advising Unit Affiliation

	PROPONENCE ("Are you a proponent of this practice?")											USAGE ("Is this your unit´s´s practice?")										
	CAS	HFA	NSM	SBS	EDU	ENG	FNR	HSC	MGT,	OTH	ALL	CAS	HFA	NSM	SBS	EDU	ENG	FNR	HSC	MGT,	OTH	ALL
N=	6	15	4	2	4	2	6	2	PHE*	6	49	6	15	4	2	4	2	6	2	PHE*	6	49
SECTION I: Practices Pertaining to Availability of Advising																						
Eve/weekend advsg	83.3	60.0	25.0	0	100.0	50.0	83.3	50.0	-	83.3	67.3	0	20.0	25.0	0	75.0	0	16.7	50.0	-	16.7	22.4
Off-campus advsg	50.0	33.3	0	0	75.0	50.0	50.0	50.0	-	50.0	38.8	0	20.0	25.0	0	50.0	0	0	50.0	-	16.7	16.3
Info other advsg	100.0	100.0	75.0	100.0	100.0	100.0	100.0	100.0	-	100.0	97.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	-	100.0	100.0
Info pers couns	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	93.3	100.0	100.0	100.0	100.0	100.0	100.0	-	100.0	98.0
Computer advsg	66.7	46.7	0	50.0	75.0	100.0	66.7	50.0	-	33.3	51.0	33.3	0	0	0	0	50.0	0	0	-	0	6.1
Prog for var nds	100.0	86.7	50.0	50.0	100.0	100.0	100.0	100.0	-	100.0	89.8	83.3	66.7	50.0	50.0	100.0	100.0	83.3	100.0	-	83.3	77.6
Trng adult advsg	83.3	46.7	25.0	50.0	100.0	100.0	66.7	100.0	-	83.3	65.3	0	6.7	0	0	100.0	100.0	33.3	0	-	50.0 **	26.5
SEC SUBTOTALS	83.3	67.6	39.3	50.0	92.3	85.7	81.0	78.6	-	78.6	72.9	45.2	43.8	42.9	35.7	75.0	64.3	47.6	57.0	-	50.0	49.5
SECTION II: Credit Evaluation/Recommendation Practices																						
Advising about possibility of																						
CLEP exams	100.0	66.7	50.0	50.0	50.0	100.0	100.0	83.3	-	100.0	81.6	83.3	60.0	50.0	0	75.0	100.0	83.3	50.0	-	100.0	69.4
PEP exams	50.0	46.7	25.0	50.0	75.0	100.0	83.3	100.0	-	66.7	61.2	16.7	33.3	0	0	25.0	50.0	66.7	0	-	16.7	28.6
CEEB/AP exams	100.0	66.7	75.0	50.0	75.0	100.0	100.0	100.0	-	100.0	83.7	83.3	53.3	50.0	0	25.0	100.0	83.3	0	-	66.7	57.1
Dept exams	100.0	80.0	75.0	50.0	100.0	100.0	83.3	100.0	-	83.3	85.7	83.3	66.7	75.0	0	75.0	100.0	66.7	50.0	-	66.7	67.3
Milit equiv´cy	66.7	26.7	50.0	50.0	50.0	50.0	33.3	50.0	-	66.7	42.9	33.3	6.7	50.0	0	25.0	50.0	50.0	0	-	33.3	24.5

(continued)

Table 17, continued

	PROPONENCE											USAGE										
N=	CAS 6	HFA 15	NSM 4	SBS 2	EDU 4	ENG 2	FNR 6	HSC 2	MGT, PHE	OTH 6	ALL 49	CAS 6	HFA 15	NSM 4	SBS 2	EDU 4	ENG 2	FNR 6	HSC 2	MGT, PHE	OTH 6	ALL 49
Training equiv´cy	66.7	33.3	50.0	50.0	75.0	50.0	16.7	50.0	-	66.7	44.9	16.7	6.7	50.0	0	25.0	50.0	33.3	0	-	33.3	20.4
NY Regents exams	66.7	26.7	50.0	50.0	75.0	50.0	0	50.0	-	66.7	42.9	16.7	0	50.0	0	25.0	50.0	16.7	0	-	16.7	14.3
Corresp study	66.7	40.0	25.0	50.0	25.0	0	33.3	0	-	50.0	36.7	50.0	26.7	50.0	0	25.0	0	16.7	0	-	33.3	26.5
Indep study	100.0	80.0	75.0	100.0	100.0	100.0	83.3	100.0	-	100.0	89.8	100.0	80.0	100.0	50.0	100.0	100.0	83.3	100.0	-	100.0	89.8
Off-campus progs	100.0	80.0	75.0	50.0	75.0	50.0	83.3	100.0	-	83.3	81.6	100.0	66.7	75.0	0	75.0	50.0	66.7	50.0	-	66.7	69.4
Con Ed courses	100.0	86.7	100.0	50.0	100.0	50.0	83.3	100.0	-	83.3	87.8	100.0	86.7	100.0	0	100.0	50.0	83.3	100.0	-	83.3	85.7
UWW courses	100.0	80.0	50.0	50.0	100.0	50.0	83.3	100.0	-	83.3	81.6	100.0	73.3	0	0	75.0	0	83.3	50.0	-	83.3	67.3
Media del courses	66.7	33.3	25.0	50.0	75.0	100.0	66.7	100.0	-	33.3	51.0	16.7	0	0	0	50.0	100.0	33.3	0	-	0	14.3
Experiential lrng	100.0	80.0	75.0	50.0	100.0	100.0	83.3	100.0	-	100.0	85.7	83.3	80.0	75.0	0	100.0	100.0	83.3	100.0	-	100.0	81.6
Interdis courses	100.0	93.3	75.0	100.0	100.0	50.0	100.0	100.0	-	100.0	93.9	100.0	93.3	75.0	50.0	100.0	50.0	83.3	0	-	100.0	85.7
SEC SUBTOTALS	85.6	61.3	58.3	56.7	81.7	70.0	67.8	83.3	-	78.9	70.1	65.6	48.9	53.3	6.7	60.0	63.3	62.2	33.3	-	60.0	53.5
SECTION III: Data Collection Practices																						
Demographic data	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	-	100.0	100.0	66.7	93.3	100.0	0	100.0	100.0	100.0	100.0	-	100.0	89.8
Socioecon data	50.0	40.0	0	50.0	100.0	50.0	66.7	50.0	-	50.0	46.9	16.7	26.7	0	0	100.0	50.0	50.0	50.0	-	50.0	34.7
Stu descrip data	100.0	100.0	100.0	50.0	100.0	100.0	100.0	100.0	-	100.0	98.0	100.0	100.0	100.0	0	100.0	100.0	100.0	50.0	-	100.0	89.8
Stu progress data	100.0	93.3	100.0	50.0	100.0	100.0	100.0	100.0	-	100.0	95.9	83.3	93.3	75.0	0	100.0	100.0	100.0	50.0	-	100.0	85.7
Prev lrng data	100.0	100.0	100.0	50.0	100.0	100.0	100.0	100.0	-	100.0	98.0	66.7	100.0**	100.0	0	100.0	100.0	100.0	50.0	-	100.0	87.8
Pers needs data	66.7	53.3	0	50.0	100.0	100.0	83.3	50.0	-	50.0	59.2	33.3	40.0	0	0	100.0	50.0	50.0	0	-	33.3	36.7

(continued)

Table 17, continued

	PROPONENCE											USAGE										
	CAS	HFA	NSM	SBS	EDU	ENG	FNR	HSC	MGT,	OTH	ALL	CAS	HFA	NSM	SBS	EDU	ENG	FNR	HSC	MGT,	OTH	ALL
N=	6	15	4	2	4	2	6	2	PHE	6	49	6	15	4	2	4	2	6	2	PHE	6	49
Acad needs data	100.0	73.3	$\boxed{0}$	50.0	100.0	100.0	100.0	100.0	-	66.7	75.5	100.0	66.7	$\boxed{0}$	$\boxed{0}$	100.0	100.0	100.0	0**	-	66.7	67.3
Other sitn data	33.3	53.3	0	50.0	25.0	0	83.3	0	-	33.3	38.8	0	40.0	0	0	25.0	0	50.0	0	-	16.7	22.4
SEC SUBTOTALS	81.2	76.7	50.0	56.2	90.6	81.2	91.7	75.0	-	75.0	76.5	58.3	70.0	$\boxed{46.9}$	$\boxed{0}$	90.6**	75.0	81.2	37.5	-	70.8	64.3
SECTION IV: Individual Advisor Practices																						
												USAGE ("Is this your [personal] practice?")										
Indiv'z'd plng	100.0	93.3	75.0	50.0	100.0	100.0	83.3	100.0	-	100.0	91.8	100.0	93.3	50.0	50.0	100.0	50.0	83.3	100.0	-	100.0	87.8
Flex curriculum	100.0	100.0	75.0	50.0	100.0	100.0	83.3	100.0	-	100.0	93.9	100.0	93.3	50.0	50.0	100.0	100.0	83.3	100.0	-	100.0	89.8
Adult lrng wksp	100.0	60.0	75.0	50.0	100.0	100.0	83.3	100.0	-	100.0	81.6	33.3	6.7	0	0	50.0	0	16.7	0	-	33.3	16.3
Leadership eff	83.3	46.7	25.0	50.0	100.0	100.0	83.3	50.0	-	83.3	65.3	16.7	0	0	50.0	$\boxed{75.0}$	50.0	33.3	0	-	33.3	20.4
Reading:adult stu	100.0	53.3	50.0	0	100.0	100.0	83.3	50.0	-	83.3	69.4	16.7	13.3	25.0	0	$\boxed{75.0}$	$\boxed{100.0}$	0	50.0	-	50.0	26.5
SEC SUBTOTALS	96.7	70.7	60.0	40.0	100.0	100.0	83.3	80.0	-	93.3	80.4	53.3	41.3	25.0	30.0	$\boxed{80.0}$	60.0	43.3	50.0	-	63.3	48.2
INSTRUMENT TOTAL	85.7	67.4	52.8	52.8	88.6	80.0	78.1	80.0	-	80.0	73.6	58.1	51.6	45.7	$\boxed{14.3}$	72.8	65.7	61.0	41.4	-	61.4	54.4

*The School of Management (MGT) and the School of Physical Education (PHE) are each represented in advisor data by only one respondent. For confidentiality reasons, MGT and PHE figures were excluded from Table 17. Note. Figures shown are percentages of affirmative responses. Analyses of variance (F tests) were conducted on numbers of affirmative responses at $p \leq$ classifications. Symbols. In any one row (between vertical lines) a figure in a rectangle is significantly different from (higher or lower than) the underlined figure(s). A figure in a dashed-line rectangle is significantly different from (higher or lower than) the figure(s) underscored with dashes. Double asterisks (**) identify these additional significant differences: "Trng adult advg," OTH > HFA; "Prev lrng data," HFA > CAS; "Acad needs data," HSC > CAS, HFA, EDU, FNR; and Sec. III subtotal, EDU > CAS. (See pages 94-96 for rationale of symbol system.)

Table 18
Proponence and Usage of Academic Advisors (n=49) According to Three Adult-Enrollment Clusters

	PROPONENCE ("Are you a proponent of this practice?")				USAGE ("Is this your unit's practice?")			
	5% Adults	10% Adults	15% Adults	Total	5% Adults	10% Adults	15% Adults	Total
N=	16	21	6	43[1]	16	21	6	43[1]
SECTION I: Practices Pertaining to Availability of Advising								
Eve/weekend advsg	5.0	52.4	83.3	65.1	12.5	19.0	40.2	23.3
Off-campus advsg	7.5	28.6	66.7	37.2	0	19.0	50.0	16.3
Info other advsg	.0	95.2	100.0	97.7	100.0	100.0	100.0	100.0
Info pers couns	.0	100.0	100.0	100.0	100.0	95.2	100.0	97.7
Computer advsg	.5	42.9	66.7	53.5	12.5	4.8	0	7.0
Prog for var nds	3.8	81.0	100.0	88.4	81.3	66.7	100.0	76.7
Trng adult advsg	8.8	47.6	100.0	62.8	18.8	14.3	66.7	23.3
SEC SUBTOTALS	76.8	63.9	88.1	72.7	46.4	45.6	69.0	49.2
SECTION II: Credit Evaluation/Recommendation Practices								
Advising about possibility of								
CLEP exams	87.5	66.7	100.0	79.1	68.8	61.9	66.7	65.1
PEP exams	68.8	47.6	83.3	60.5	37.5	28.6	16.7	30.2
CEEB/AP exams	93.8	71.4	83.3	81.4	68.8	57.1	16.7	55.8
Dept exams	87.5	81.0	100.0	86.0	62.5	71.4	66.7	67.4
Milit equiv'cy	43.8	33.3	50.0	39.5	31.3	19.0	16.7	23.3
Training equiv'cy	37.5	38.1	66.7	41.9	18.8	19.0	16.7	18.6
NY Regents exams	37.5	33.3	66.7	39.5	12.5	14.3	16.7	14.0
Corresp study	43.8	33.3	16.7	34.9	25.0	28.6	16.7	25.6
Indep study	93.8	81.0	100.0	88.4	87.5	85.7	100.0	88.4
Off-campus progs	87.5	76.2	83.3	81.4	75.0	66.7	66.7	69.8
Con Ed courses	87.5	85.7	100.0	88.4	81.3	85.7	100.0	86.0
UWW courses	87.5	71.4	100.0	81.4	81.3	52.4	66.7	65.1
Media del courses	62.5	38.1	83.3	53.5	18.8	9.5	33.3	16.3
Experiential lrng	81.3	81.0	100.0	83.7	68.8	81.0	100.0	79.1

(continued)

Table 18, continued

	PROPONENCE				USAGE			
	5% Adults	10% Adults	15% Adults	Total	5% Adults	10% Adults	15% Adults	Total
N=	16	21	6	43	16	21	6	43
Interdis courses	100.0	85.7	100.0	93.0	87.5	85.7	66.7	83.7
SEC SUBTOTALS	73.3	61.6	82.2	68.8	55.0	51.1	51.1	52.6
SECTION III: Data Collection Practices								
Demographic data	100.0	100.0	100.0	100.0	75.0	95.2	100.0	88.4
Socioecon data	50.0	33.3	83.3	46.5	25.0	23.8	83.3	32.6
Stu descrip data	93.8	100.0	100.0	97.7	75.0	100.0	83.3	88.4
Stu progress data	93.8	95.2	100.0	95.3	75.0	90.5	83.3	83.7
Prev lrng data	93.8	100.0	100.0	97.7	68.8	100.0	83.3	86.0
Pers needs data	68.8	47.6	83.3	60.5	31.3	33.3	66.7	37.2
Acad needs data	87.5	61.9	100.0	76.7	81.3	57.1	66.7	67.4
Other sitn data	50.0	38.1	16.7	39.5	18.8	28.6	16.7	23.3
SEC SUBTOTALS	79.7	72.0	85.4	76.7	56.2	66.1	72.9	63.4
SECTION IV: Individual Advisor Practices								
					USAGE ("Is this your [personal] practice?")			
Indiv'z'd plng	87.5	90.5	100.0	90.7	87.5	81.0	100.0	86.0
Flex curriculum	87.5	95.2	100.0	93.0	87.5	85.7	100.0	88.4
Adult lrng wksp	87.5	66.7	100.0	79.1	18.8	4.8	33.3	14.0
Leadership eff	75.0	47.6	83.3	62.8	25.0	4.8	50.0	18.6
Reading:adult stu	75.0	57.1	83.3	67.4	6.3	23.8	66.7	23.3
SEC SUBTOTALS	82.5	71.4	93.3	78.6	45.0	40.0	70.0	46.0
INSTRUMENT TOTAL	76.8*	65.9*	85.7*	72.7	52.1	51.8	62.4	53.4

[1] Six advisors in "other advising unit" subgroup, having no enrollment category equivalent, were omitted from Table 18.

See Table 17 footnotes (page 193) for explanation of figures displayed.
See pages 94-96 for rationale of symbol system. Composition of adult-enrollment clusters is defined on page 186. Full wording of practices is provided in Table 5, page 116, and Table 9, page 132.

Table 19
Proponence and Usage of Academic Advisors (n=49) According to Gender and Adult-Advisee Load

	PROPONENCE ("Are you a proponent of this practice?")							USAGE ("Is this your unit's practice?")						
	GENDER		ADULT-ADVISEE LOAD					GENDER		ADULT-ADVISEE LOAD				
	Male	Female	No Adults	1/4 or Fewer	1/4-1/2	1/2 or More	Total	Male	Female	No Adults	1/4 or Fewer	1/4-1/2	1/2 or More	Total
N=	31	18	6	38	3	2	49	31	18	6	38	3	2	49
SECTION I: Practices Pertaining to Availability of Advising														
Eve/weekend advsg	67.7	66.7	50.0	65.8	100.0	100.0	67.3	22.6	22.2	0	21.0	66.7	50.0	22.4
Off-campus advsg	35.5	44.4	33.3	34.2	66.7	100.0	38.8	12.9	22.2	16.7	13.2	33.3	50.0	16.3
Info other advsg	96.8	100.0	100.0	97.4	100.0	100.0	97.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Info pers couns	100.0	100.0	100.0	100.0	100.0	100.0	100.0	96.8	100.0	100.0	100.0	100.0	100.0	98.0
Computer advsg	58.1	38,9	33.3	50.0	66.7	100.0	51.0	6.5	5.6	0	7.9	0	0	6.1
Prog for var nds	90.3	88.9	83.3	89.5	100.0	100.0	89.8	77.4	77.8	50.0	78.9	100.0	100.0	77.6
Trng adult advsg	51.6	88.9	83.3	57.9	100.0	100.0	65.3	22.6	33.3	0	21.0	100.0	100.0	26.5
SEC SUBTOTALS	71.4	75.4	69.0	70.7	90.5	100.0	72.9	48.4	51.6	38.0	48.5	71.4	71.4	49.5
SECTION II: Credit Evaluation/Recommendation Practices														
Advising about possibility of														
CLEP exams	74.2	94.4	33.3	86.8	100.0	100.0	81.6	64.5	77.8	33.3	73.7	66.7	100.0	69.4
PEP exams	61.3	61.1	0	65.8	100.0	100.0	61.2	35.5	16.7	0	31.6	0	100.0	28.6
CEEB/AP exams	77.4	94.4	50.0	89.5	100.0	50.0	83.7	54.8	61.1	50.0	63.2	0	50.0	57.1
Dept exams	80.6	94.4	66.7	86.8	100.0	100.0	85.7	64.5	72.2	66.7	65.8	66.7	100.0	67.3
Milit equiv'cy	38.7	50.0	0	44.7	66.7	100.0	42.9	22.6	27.8	0	23.7	33.3	100.0	24.5

(continued)

Table 19, continued

	PROPONENCE							USAGE						
	Male	Female	No Adults	1/4 or Fewer	1/4-1/2	1/2 or More	Total	Male	Female	No Adults	1/4 or Fewer	1/4-1/2	1/2 or More	Total
N=	31	18	6	38	3	2	49	31	18	6	38	3	2	49
Training equiv´cy	38.7	55.6	0	44.7	100.0	100.0	44.9	19.4	22.2	0	18.4	33.3	100.0	20.4
NY Regents exams	35.5	55.6	0	42.1	100.0	100.0	42.9	12.9	16.7	0	13.2	0	100.0	14.3
Corresp study	29.0	50.0	16.7	42.1	33.0	0	36.7	25.8	27.8	0	31.6	33.3	0	26.5
Indep study	83.9	100.0	66.7	92.1	100.0	100.0	89.8	83.9	100.0	66.7	92.1	100.0	100.0	89.8
Off-campus progs	83.9	77.8	66.7	84.2	66.7	100.0	81.6	71.0	66.7	66.7	68.4	66.7	100.0	69.4
Con Ed courses	87.1	88.9	33.3	94.7	100.0	100.0	87.8	83.9	88.9	33.3	92.1	100.0	100.0	85.7
UWW courses	77.4	88.9	33.3	86.8	100.0	100.0	81.6	61.3	77.8	33.3	73.7	66.7	50.0	67.3
Media del courses	51.6	50.0	16.7	50.0	100.0	100.0	51.0	12.9	16.7	0	10.5	33.3	100.0	14.3
Experiential lrng	77.4	100.0	50.0	89.5	100.0	100.0	85.7	74.2	94.4	50.0	84.2	100.0	100.0	81.6
Interdis courses	93.5	94.4	83.3	94.7	100.0	100.0	93.9	83.9	88.9	83.3	84.2	100.0	100.0	85.7
SEC SUBTOTALS	66.0	77.0	34.4	73.0	91.1	90.0	70.1	51.4	57.0	32.2	55.1	53.3	86.7	53.5
SECTION III: Data Collection Practices														
Demographic data	100.0	100.0	100.0	100.0	100.0	100.0	100.0	90.3	88.9	100.0	86.8	100.0	100.0	89.8
Socioecon data	51.6	38.9	16.7	47.4	66.7	100.0	46.9	35.5	33.3	16.7	31.6	66.7	100.0	34.7
Stu descrip data	96.8	100.0	100.0	97.3	100.0	100.0	98.0	83.9	100.0	100.0	86.8	100.0	100.0	89.8
Stu progress data	96.8	94.4	100.0	94.7	100.0	100.0	95.9	83.9	88.9	100.0	81.6	100.0	100.0	85.7
Prev lrng data	96.8	100.0	100.0	97.4	100.0	100.0	98.0	83.9	94.4	100.0	84.2	100.0	100.0	87.8
Pers needs data	61.3	55.6	0	63.2	100.0	100.0	59.2	38.7	33.3	0	39.4	66.7	50.0	36.7

(continued)

Table 19, continued

	PROPONENCE							USAGE						
	Male	Female	No Adults	1/4 or Fewer	1/4-1/2	1/2 or More	Total	Male	Female	No Adults	1/4 or Fewer	1/4-1/2	1/2 or More	Total
N=	31	18	6	38	3	2	49	31	18	6	38	3	2	49
Acad needs data	74.4	72.2	50.0	76.3	100.0	100.0	75.5	71.0	61.1	50.0	65.8	100.0	100.0	67.3
Other sitn data	48.4	22.2	16.7	44.7	0	50.0	38.8	29.0	11.1	16.7	23.7	0	50.0	22.4
SEC SUBTOTALS	78.6	72.9	60.4	77.6	83.3	93.8	76.5	64.5	63.9	60.4	62.5	79.2	87.5	64.3
SECTION IV: Individual Advisor Practices														
									USAGE ("Is this your [personal] practice?")					
Indiv'z'd plng	87.1	100.0	83.3	92.1	100.0	100.0	91.8	83.9	94.4	83.3	86.8	100.0	100.0	87.8
Flex curriculum	90.3	100.0	83.3	94.7	100.0	100.0	93.9	83.9	100.0	66.7	92.1	100.0	100.0	89.8
Adult lrng wksp	74.2	94.4	83.3	78.9	100.0	100.0	81.6	19.4	11.1	0	18.4	0	50.0	16.3
Leadership eff	54.8	83.3	66.7	60.5	100.0	100.0	65.3	22.6	16.7	0	15.8	66.7	100.0	20.4
Reading:adult stu	58.1	88.9	50.0	68.4	100.0	100.0	69.4	19.4	38.9	0	23.7	66.7	100.0	26.5
SEC SUBTOTALS	72.9	93.3	73.3	78.9	100.0	100.0	80.4	45.8	52.2	30.0	47.4	66.7	90.0	48.2
INSTRUMENT TOTAL	71.0	78.1	52.8	74.4	90.5	94.3	73.6	53.0	56.8	39.5	54.4	64.8	84.3	54.4

Note. Figures shown are percentages of affirmative responses. Analyses of variance (F tests) were conducted on numbers of affirmative responses at $p \leq .05$. F tests were distributed on c-1 and n-c-1 degrees of freedom, where n is the total sample size and c is the number of classifications. Symbols. In any one row (between vertical lines) a figure in a rectangle is significantly different from (higher or lower than) the underlined figure(s). A figure in a dashed-line rectangle is significantly different from (higher or lower than) the figure(s) underscored with dashes. (See pages 94-94 for rationale of symbol system.)

Table 20
Proponence and Usage of Academic Advisors (n=49) According to Faculty/Staff Role and Authority Level

	PROPONENCE ("Are you a proponent of this practice?")							USAGE ("Is this your unit´s practice?")						
	ROLE		AUTHORITY LEVEL					ROLE		AUTHORITY LEVEL				
	Faculty	Staff	1-A	2-A	3-A	3-C	Total	Faculty	Staff	1-A	2-A	3-A	3-C	Total
N=	37	12	11	5	28	5	49	37	12	11	5	28	5	49
SECTION I: Practices Pertaining to Availability of Advising														
Eve/weekend advsg	62.2	83.3	81.8	80.0	53.6	100.0	67.3	24.3	16.7	27.3	40.0	17.9	20.0	22.4
Off-campus advsg	32.4	58.3	54.5	80.0	25.0	40.0	38.8	16.2	16.7	18.2	40.0	14.3	0	16.3
Info other advsg	97.3	100.0	100.0	100.0	96.4	100.0	97.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Info pers couns	100.0	100.0	100.0	100.0	100.0	100.0	100.0	97.3	100.0	100.0	100.0	96.4	100.0	98.0
Computer advsg	45.9	66.7	72.7	40.0	46.4	40.0	51.0	5.4	8.3	18.2	0	3.6	0	6.1
Prog for var nds	86.5	100.0	100.0	100.0	82.1	100.0	89.8	73.0	91.7	72.7	100.0	71.4	100.0	77.6
Trng adult advsg	56.8	91.7	90.9	80.0	46.4	100.0	65.3	16.2	58.3	54.5	40.0	3.6	80.0	26.5
SEC SUBTOTALS	68.7	85.7	85.7	82.8	64.3	69.0	72.9	47.5	56.0	55.8	60.0	43.9	57.1	49.5
SECTION II: Credit Evaluation/Recommendation Practices														
Advising about possibility of														
CLEP exams	75.7	100.0	100.0	100.0	71.4	80.0	81.6	62.2	91.7	100.0	80.0	60.7	40.0	69.4
PEP exams	54.1	83.3	63.6	80.0	53.6	80.0	61.2	29.7	25.0	27.3	20.0	32.1	20.0	28.6
CEEB/AP exams	81.1	91.7	90.9	100.0	78.6	80.0	83.7	59.5	50.0	63.6	40.0	60.7	40.0	57.1
Dept exams	83.8	91.7	81.8	100.0	85.7	80.0	85.7	64.9	75.0	81.8	60.0	67.9	40.0	67.3

(continued)

Table 20, continued

	PROPONENCE							USAGE						
	Faculty	Staff	1-A	2-A	3-A	3-C	Total	Faculty	Staff	1-A	2-A	3-A	3-C	Total
N=	37	12	11	5	28	5	49	37	12	11	5	28	5	49
Milit equiv´cy	35.1	66.7	45.5	20.0	42.9	60.0	42.9	18.9	41.7	36.4	20.0	21.4	20.0	24.5
Training equiv´cy	37.8	66.7	45.5	20.0	42.9	80.0	44.9	16.2	33.3	27.3	20.0	17.9	20.0	20.4
NY Regents exams	35.1	66.7	54.5	20.0	35.7	80.0	42.9	10.8	25.0	18.2	20.0	10.7	20.0	14.3
Corresp study	32.4	50.0	45.5	40.0	35.7	20.0	36.7	24.3	33.3	36.4	40.0	25.0	0	26.5
Indep study	86.5	100.0	100.0	100.0	85.7	80.0	89.8	86.5	100.0	100.0	100.0	85.7	80.0	89.8
Off-campus progs	81.1	83.3	90.9	100.0	78.6	60.0	81.6	67.6	75.0	90.9	80.0	67.9	20.0	69.4
Con Ed courses	86.5	91.7	81.8	100.0	85.7	100.0	87.8	83.8	91.7	81.8	100.0	82.1	100.0	85.7
UWW courses	78.4	91.7	81.8	100.0	75.0	100.0	81.6	62.2	83.3	63.6	80.0	60.7	100.0	67.3
Media del courses	45.9	66.7	81.8	40.0	42.9	40.0	51.0	10.8	25.0	27.3	20.0	7.1	20.0	14.3
Experiential lrng	81.1	100.0	90.9	100.0	78.6	100.0	85.7	78.4	91.7	90.9	100.0	75.0	80.0	81.6
Interdis courses	94.6	91.7	90.9	100.0	92.9	100.0	93.9	83.8	91.7	90.9	80.0	82.1	100.0	85.7
SEC SUBTOTALS	65.9	82.8	76.4	74.7	65.7	76.0	70.1	50.6	62.2	62.4	57.3	50.5	46.7	53.5
SECTION III: Data Collection Practices														
Demographic data	100.0	100.0	100.0	100.0	100.0	100.0	100.0	89.2	91.7	81.8	100.0	89.3	100.0	89.8
Socioecon data	45.9	50.0	54.5	60.0	39.3	60.0	46.9	32.4	41.7	36.4	60.0	25.0	60.0	34.7
Stu descrip data	97.3	100.0	100.0	100.0	96.4	100.0	98.0	62.2	70.8	90.9	80.0	89.3	100.0	89.8
Stu progress data	94.6	100.0	100.0	100.0	92.9	100.0	95.9	83.8	91.7	90.9	100.0	82.1	80.0	85.7
Prev lrng data	97.3	100.0	100.0	100.0	96.4	100.0	98.0	86.5	91.7	90.9	100.0	85.7	80.0	87.8

(continued)

Table 20, continued

	PROPONENCE							USAGE						
	Faculty	Staff	1-A	2-A	3-A	3-C	Total	Faculty	Staff	1-A	2-A	3-A	3-C	Total
N=	37	12	11	5	28	5	49	37	12	11	5	28	5	49
Pers needs data	54.1	75.0	72.7	80.0	46.4	80.0	59.2	32.4	50.0	36.4	40.0	32.1	60.0	36.7
Acad needs data	73.0	83.3	81.8	80.0	67.9	100.0	75.5	62.2	83.3	81.8	60.0	57.1	100.0	67.3
Other sitn data	40.5	33.3	27.3	20.0	50.0	20.0	38.8	24.3	16.7	9.7	20.0	32.1	0	22.4
SEC SUBTOTALS	75.3	80.2	79.5	80.0	73.7	82.5	76.5	62.2	70.8	64.8	70.0	61.6	72.5	64.3
SECTION IV: Individual Advisor Practices														
								USAGE ("Is this your [personal] practice?")						
Indiv'z'd plng	89.2	100.0	100.0	100.0	85.7	100.0	91.8	86.5	91.7	90.9	100.0	82.1	100.0	87.8
Flex curriculum	91.9	100.0	100.0	100.0	89.3	100.0	93.9	86.5	100.0	100.0	100.0	82.1	100.0	89.8
Adult lrng wksp	75.7	100.0	$\boxed{100.0}$	100.0	$\underline{67.9}$	100.0	81.6	13.5	25.0	9.1	20.0	14.3	40.0	16.3
Leadership eff	$\underline{56.8}$	$\boxed{91.7}$	72.7	100.0	53.6	80.0	65.3	18.9	25.0	27.3	20.0	14.3	40.0	20.4
Reading:adult stu	62.2	91.7	81.8	100.0	57.1	80.0	69.4	$\underline{18.9}$	$\boxed{50.0}$	45.5*	40.0*	10.7*	60.0*	26.5
SEC SUBTOTALS	$\underline{75.1}$	$\boxed{96.7}$	90.9	100.0	70.7	92.0	80.4	44.9	58.3	54.5	56.0	40.7	68.0	48.2
INSTRUMENT TOTAL	$\underline{70.0}$	$\boxed{84.8}$	81.0	81.1	68.0	81.1	73.6	51.8	62.4	60.5	60.6	50.3	57.7	54.4

Note. Figures shown are percentages of affirmative responses. Analyses of variance (F tests) were conducted on numbers of affirmative responses at $p \leq .05$. F tests were distributed on c-1 and n-c-1 degrees of freedom, where n is the total sample size and c is the number of classifications. Symbols. In any one row (between vertical lines) a figure in a rectangle is significantly different from (higher or lower than) the underlined figure(s). (See pages 94-94 for rationale of symbol system.) *Analysis of variance indicated significant differences among subgroups, but a posteriori contrast tests did not pinpoint subgroups having greatest influence on those differences.

Proponence and Usage of Unit Heads, Faculty, and Advisors Across Common Areas of Practice

Much of the chapter so far has been devoted to analyses of the separate data sets which comprise responses to the unit-head instrument, the faculty instrument, and the academic-advisor instrument. In this section an "umbrella" perspective across those groups is the focus. Sought were general understandings about the status of some common topics or areas of activity, such as independent study courses or evening/weekend advising, in which each respondent group has a particular function.

Practices were identified in each instrument which share a common theme with practices in one or both of the other instruments. In all, 27 broad themes or topics were found, subsuming 20 items of practice from the unit-head instrument, 17 from the faculty instrument, and 23 from the advisor instrument. The 27 common topics were then grouped under four headings: Delivery Modes, Credit Award, Access to Advising, and Professional Development. Table 21 displays the topics and proponence and usage scores of the three respondent groups; these figures were extracted from earlier tables which display the three groups' scores separately.

Analyses of variance and _a posteriori_ contrasts like those used in analyzing the separate data sets were applied to the scores under common topics. While .05 was retained as the chosen level of significance, nearly three quarters of the identified differences marked with symbols in Table 21 are significant at the .01 level or beyond.

Comparison of scores across the three groups differs from the separate group treatments in that the earlier findings considered variation within a group concerning the same practice. Where possible, the observations below focus on the common topic; the contributions of each group to a finding are its proponence and usage scores for whatever specific practice within that common topic is the pertinent activity for that group. For example, the combinants of an observation about the status of off-campus classes would be unit-head response to the practice of offering off-campus classes, faculty response to the practice of teaching off-campus classes, and advisor response to the practice of advising students about off-campus classes. Under many of the common topics, only two respondent groups, usually unit heads and advisors, have related functions which were incorporated into survey instruments; in these cases, only two scores were statistically compared.

Visual inspection of the spread of scores in Table 21 reveals that proponence across the four clusters of topics is generally high for only one cluster, Delivery Modes. Elsewhere, proponence and usage vary, sometimes widely, from item to item and group to group.

High or Low Status

Both proponence and usage are relatively high across unit heads, faculty, and advisors concerning the independent study mode of delivering a course; across unit heads and advisors for informational connections among campus advising sources; and across faculty and advisors for advising students about flexibility in the curriculum.

Both proponence and usage are relatively low across unit heads, faculty, and advisors concerning the correspondence-study mode of delivering a course, and across unit heads and advisors for the media-delivered course mode and equivalency methods of awarding credit. Remaining topics have mixed or midrange marks in proponence and/or usage.

Statistically Significant Differences

Analyses of variance and *a posteriori* contrasts of group scores under the 27 common topics produced findings of significant difference in proponence, usage, or both concerning 21 of the 27 topics, including most of the topics listed above as having relatively uniform marks.

Advisors have significantly higher scores in nine of the 11 findings concerning proponence; they scored higher than unit heads in eight findings and higher than both unit heads and faculty in the ninth finding. Advisors scored significantly higher in 20 of 21 findings concerning usage; they have higher scores than both unit heads and faculty in five findings, higher scores than unit heads in nine findings, and higher scores than faculty in six findings.

The faculty score is significantly higher in only two findings. Unit heads have no significantly higher scores under common topics.

Further explanation accompanied by inspection of Table 21 brings out interesting contrasts. Advisors' usage scores are generally higher statistically for advising students about alternative course delivery modes than are unit-head scores about their units' making such modes available. (Proponence scores for most modes, on the other hand, do not differ significantly.) Similarly, although scores are generally low for most credit-award topics, advisors' scores are significantly higher for advising students about earning credit via examination and equivalency than are unit-head scores about their units' allowing students to apply such credit to program requirements; this pattern holds for both proponence and usage. In the last cluster of topics, advisors scored significantly higher than unit heads in proponence for workshops about adult learners and in usage of (*i. e.*, actual participation in) such workshops.

Particularly interesting of the two findings elevating faculty to the significantly higher-scoring position is that faculty self-report (*i. e.*, usage) of being available for evening/weekend advising appointments is statistically above unit heads' and advisors' scores about their units' making such advising available. The second finding placed faculty (and advisors) significantly above unit heads for usage of practices related to independent study.

Correlations: Group Proponence, Group Usage, Adult Enrollment

In addition to the common-topics approach, correlational analysis was chosen as a way of viewing study outcomes at a level of aggregation above the single respondent group. The question driving the investigation was, What is the relationship of a group's total proponence score to its own total usage score, to the proponence score and usage score of the other groups, and to adult enrollment?

To produce the findings reported below, total proponence and usage scores for each of the three groups were broken down into total scores by school, college, or faculty affiliation. This breakdown produced six sets of figures: nine proponence scores and nine usage scores for unit heads, nine proponence scores and nine usage scores for faculty, and 11 proponence scores and 11 usage scores for advisors (whose additional affiliations are CASIAC and "other" advising units). A seventh

Table 21
Comparison of Unit Head, Faculty, and Advisor Responses to Selected Practices Effective in Serving Adult Undergraduates

Specific Practice within BROADER TOPIC	PROPONENCE ("Are you a proponent of this practice?") Unit Heads N=48 % Yes	PROPONENCE Faculty N=91 % Yes	PROPONENCE Advisors N=49 % Yes	USAGE ("Is this your [unit's] practice?") Unit Heads % Yes	USAGE Faculty % Yes	USAGE Advisors % Yes
Delivery Modes						
Offering courses by CORRESPONDENCE STUDY	$\underline{10.4}$			$\underline{0}$		
Teaching a course by CORRESPONDENCE STUDY		$\underline{18.7}$			$\underline{1.1}$	
Advising about earning credit via CORRESPONDENCE STUDY			$\boxed{36.7}$			$\boxed{26.5}$
Offering courses by INDEPENDENT STUDY	$\underline{77.1}$			$\boxed{62.5}$		
Teaching a course by INDEPENDENT STUDY		$\boxed{92.3}$			$\underline{79.1}$	
Advising about earning credit via INDEPENDENT STUDY			89.8			$\underline{89.8}$
Offering OFF-CAMPUS CLASSES	64.6			$\underline{22.9}$		
Teaching OFF-CAMPUS CLASSES		64.8			$\underline{16.5}$	
Advising about earning credit via OFF-CAMPUS CLASSES			81.6			$\boxed{69.4}$
Offering courses in MEDIA DELIVERY FORMATS	66.7			10.4		
Advising about courses offered in MEDIA DELIVERY FORMATS			51.0			14.3
Scheduling some sections of courses in EVENING/WEEKEND SLOTS	81.3			50.0		
Teaching regular course in EVENING/WEEKEND SLOT		84.6			35.2	
Offering courses through DIVISION OF CONTINUING EDUCATION	85.4			$\underline{87.5}$		
Teaching self-/unit-initiated courses via DIVISION OF CONTINUING EDUCATION		87.9			$\boxed{24.2}$	
Advising about earning credit through DIVISION OF CONTINUING EDUCATION			87.8			$\underline{85.7}$
Allowing students to develop INDIVIDUALIZED COURSES OF STUDY	75.0			$\underline{39.6}$		
Helping adult students plan INDIVIDUALIZED COURSES OF STUDY		90.1			$\underline{47.3}$	
Encouraging and helping students plan INDIVIDUALIZED COURSES OF STUDY			91.8			$\boxed{87.8}$
Teaching courses with EXPERIENTIAL LEARNING COMPONENTS		85.7			$\underline{54.9}$	
Advising students about courses with EXPERIENTIAL LEARNING COMPONENTS			85.7			$\boxed{81.6}$

(continued)

Table 21, continued

	PROPONENCE			USAGE		
	Unit Heads	Faculty	Advisors	Unit Heads	Faculty	Advisors
	% Yes	% Yes	% Yes	% Yes	% Yes	% Yes
Teaching INTERDISCIPLINARY COURSES		93.4			46.2	
Advising students about INTERDISCIPLINARY COURSES			93.9			85.7
Serving as sponsor, evaluator, etc., for UNIVERSITY WITHOUT WALLS students		80.2			37.4	
Advising students about courses offered by UNIVERSITY WITHOUT WALLS			81.6			67.3
Advising students about ways of MAKING THE CURRICULUM MORE FLEXIBLE		89.0			72.5	
Advising students about ways of MAKING THE CURRICULUM MORE FLEXIBLE			93.9			89.8
Credit Award						
Allowing students to apply CREDIT BY "CLEP" EXAMINATION to requirements	37.5			27.1		
Advising students about earning CREDIT BY "CLEP" EXAMINATION			81.6			69.4
Allowing students to apply CREDIT BY "PEP" EXAMINATION to requirements	22.9			14.6		
Advising students about earning CREDIT BY "PEP" EXAMINATION			61.2			28.6
Allowing students to apply CREDIT BY "CEEB/AP" EXAMINATION to requirements	37.5			25.0		
Advising students about earning CREDIT BY "CEEB/AP" EXAMINATION			83.7			57.1
Allowing students to apply CREDIT BY DEPARTMENTAL EXAMINATION to requirements	68.8			43.8		
Advising students about earning CREDIT BY DEPARTMENTAL EXAMINATION			85.7			67.3
Allowing students to apply CREDIT BY EQUIVALENCY (for MILITARY EDUCATION)	14.6			2.1		
Advising adult students about CREDIT BY EQUIVALENCY (for MILITARY EDUCATION)			42.9			24.5
Allowing students to apply CREDIT BY EQUIVALENCY (for NON-MILITARY TRAINING)	14.6			2.1		
Advising adult students about CREDIT BY EQUIVALENCY (for NON-MILITARY TRAINING)			44.9			20.4
Allowing students to apply CREDIT BY EQUIVALENCY (via N. Y. REGENTS EXAMS)	14.6			2.1		
Advising adult students about CREDIT BY EQUIVALENCY (via N. Y. REGENTS EXAMS)			42.9			14.3
Offering advising, workshop, or other assistance to students in developing PRIOR LEARNING PORTFOLIO OR DEMONSTRATION	54.2			20.8		
Helping student with PRIOR LEARNING PORTFOLIO OR DEMONSTRATION		61.5			24.2	

(continued)

Table 21, continued

	PROPONENCE Unit Heads % Yes	 Faculty % Yes	 Advisors % Yes	USAGE Unit Heads % Yes	 Faculty % Yes	 Advisors % Yes
Access to Advising						
Maintaining good referral network w/OTHER CAMPUS SOURCES OF ACADEMIC ADVISING	97.9			$\underline{70.8}$		
Providing information to advisees about OTHER CAMPUS SOURCES OF ACADEMIC ADVISING			97.9			$\boxed{100.0}$
Making available some department/unit ADVISING EVENINGS AND/OR WEEKENDS	54.2			$\underline{25.0}$		
Being available for appointments for ADVISING EVENINGS AND/OR WEEKENDS		67.0			$\boxed{51.6}$	
Making available some unit ADVISING EVENINGS AND/OR WEEKENDS			67.3			$\underline{22.4}$
Making available some department/unit ADVISING OFF CAMPUS	35.4			18.8		
Being available for appointments for ADVISING OFF CAMPUS		52.7			24.2	
Making available some unit ADVISING OFF CAMPUS			38.8			16.3
Professional Development						
Including student learning styles in FACULTY DISCUSSION OF STUDENT LEARNING	75.0			27.1		
Participating in local ORGANIZED DISCUSSION OF STUDENT LEARNING		71.4			19.8	
Participating in workshop or other EXPERIENCE TO BROADEN [faculty] ADVISORS' KNOWLEDGE OF ADULT LEARNING/LEARNERS			75.7*			13.5*
Sponsoring/participating in local STAFF WORKSHOP ABOUT ADULT LEARNER NEEDS	$\underline{56.3}$			$\underline{0}$		
Participating in workshop of other EXPERIENCE TO BROADEN [staff] ADVISORS' KNOWLEDGE OF ADULT LEARNING/LEARNERS			$\boxed{100.0*}$			$\boxed{25.0*}$
Recognizing faculty via reward system for TEACHING/WORKING WITH ADULT STUDENTS	35.4			6.3		
Receiving recognition via reward system for TEACHING/WORKING WITH ADULT STUDENTS		**			4.4	
Leading national, regional, or local EFFORTS RELATED TO ADULT LEARNING OR ADULT LEARNERS		59.3			$\underline{7.7}$	
Taking leadership role in ENCOURAGING OTHER ADVISORS TO BROADEN KNOWLEDGE OF ADULT LEARNING OR ADULT LEARNERS			65.3			$\boxed{20.4}$
Undertaking SPECIAL READING ABOUT ADULT COLLEGE STUDENTS		63.7			$\underline{12.1}$	
Undertaking SPECIAL READING ABOUT ADULT COLLEGE STUDENTS			69.4			$\boxed{26.5}$

*Advisor group scores were separated into faculty-advisor and staff-advisor subscores for this item.
**No "proponent" question was asked.

Note. Figures shown (percentages of affirmative responses) were taken from tables displayed earlier in the chapter. Analyses of variance (*F* tests) were conducted on numbers of affirmative responses at $p \leq .05$. *Symbols*. In any one row (on one side of the vertical line), a figure in a rectangle is significantly different (higher or lower than) the underlined figure(s). (See pages 94-96 for rationale of symbol system.)

set of figures was obtained by calculating the percentage of adult undergraduates enrolled in those school, college, and faculty units (all except the "other" advising unit designation) in spring 1987. (Table 40 in Appendix D recaps the relevant figures.) An electronic calculator with the appropriate statistical function (*TI-55 III Guidebook*, 1986) was used to perform Pearson product-moment correlation procedures. Some values have no equivalents and are thus represented in Table 22 by dashed lines. Where only nine pairs of values were available, seven degrees of freedom determined the location of the correlation coefficient in reference tables.

Table 22 displays the resulting correlation coefficients; significance levels are noted. A relatively high positive relationship, significant at the .01 level, is indicated between the *proportion of unit heads who are proponents of the given practices* and the *extent to which those practices are used in their units* (r=.88), and between the *extent of usage of the given practices in units* with the *proportions of adult undergraduates enrolled* in those units (r=.83).

Nine other r values are significant at the .05 level. Together with the two values cited above, they form a distinctive and highly interesting pattern: All of the various pairings of unit-head scores, faculty scores, and adult-enrollment figures produced significant r values, but *none* of the comparisons of those values with advisor scores produced significant r values. The only moderately high positive relationship involving advisors is between their own proponence scores and their own usage scores (.76). Alternatively stated, moderately high positive relationships exist between all possible pairs of these five factors: unit head proponence, unit head usage, faculty propo-

Table 22
Correlations Among Total Proponence Scores, Total Usage Scores, and Percentages of Adults Enrolled in School-College-Faculty Units

	Unit Head Proponence	Unit Usage	Faculty Proponence	Faculty Usage	Advisor Proponence	Advisor/Adv Unit Usage	Adult Enrollment
Unit Head Proponence	1.0	.88**	.70*	.79*	.66	.49	.69*
Unit Usage	.88**	1.0	.74*	.79*	.55	.46	.83**
Faculty Proponence	.70*	.74*	1.0	.75*	.28	.11	.68*
Faculty Usage	.79*	.79*	.75*	1.0	.45	.04	.69*
Advisor Proponence***	.66	.55	.28	.45	1.0	.76*	.29
Advisor/Adv Unit Usage***	.49	.46	.11	.04	.76*	1.0	.15
Adult Enrollment	.69*	.83**	.68*	.69*	.29	.15	1.0

*Significant at .05 level
**Significant at .01 level

***When advisor proponence scores are matched with advisor usage scores, all 11 subgroups are paired. When advisor proponence scores and advisor usage scores are matched with adult enrollment figures, the "other advising units" subgroup is excluded. In matches of advisor scores or enrollment figures with unit-head or faculty scores, the "other" advisor subgroup, the CASIAC advisor subgroup, and the CASIAC enrollment group are excluded. Exclusions are made because no pairable figure exists in the other set of scores.

NOTE: Adult enrollment figures used are those given in 10 school, college, and faculty categories for Spring semester 1987; those figures and the respondent-group scores used in the correlation calculations are displayed in Table 40 in Appendix D.

nence, faculty usage, and percentage of adults enrolled. In contrast, no positive relationship was identified between any of the five factors and advisor proponence or advisor usage; that is, advisor proponence is highly correlated only with advisor usage.

One interpretation of the situation is that the extent of advisor proponence for practices effective in serving adults is somewhat related to the usage they give to those practices. But advisor proponence, although it varies from unit to unit, seems to be independent of unit head and faculty proponence and usage. Usage of practices among advisors, similarly, seems to be mostly unrelated to unit head and faculty proponence and usage.

Qualifiers from the technical literature attach to such an interpretation. Not only do overall scores or measures of central tendency have limitations, but not all relationships can be assumed to fit the linear model underlying the correlation formula. Further, evidence of a positive correlation does not necessarily imply a direct causal relationship between factors (Ferguson, 1981, pp. 134-137). Nevertheless, in combination with other findings, the correlational statements serve to set academic advisors apart as a group worth special focus.

Proponence and Usage: "Adult" Units vs. Academic Units with 15% Adults

An avenue of inquiry identified early in the study as having great potential interest is the comparison between the special units which were established primarily to serve large proportions of adults (Division of Continuing Education, University Without Walls) and those units among the nine schools, colleges, and faculties which enroll the largest proportions of adult undergraduates. The requisite information was not received from DCE, so one side of the comparison below consists only of responses from UWW, where more than 90% of degree-seekers are 25 or older. The other side of the comparison is represented by the cluster of academic units whose undergraduate enrollment is about 15% adult undergraduates; the School of Education and the College of Health Sciences make up this cluster.

A context has already been established for this comparison: (a) The UWW unit head is a proponent for all but three of the 47 practices listed in the unit-head instrument. All but six of the 47 practices listed in the unit-head instrument are used in UWW (see Tables 6 and 10). (b) The 15%-adults cluster of unit heads is significantly higher than the 10%-adults and 5%-adults clusters in proponence and usage for several practices (see Table 12).

In order to see UWW and the 15%-adults cluster of units from a new perspective, practices for which the 15% cluster is significantly higher than the 10% and 5% clusters were separated into two sets: (a) practices for which more than 80% of 15%-cluster respondents indicated proponence or usage, and (b) those for which fewer than 80% of 15%-cluster respondents indicated proponence or usage. The first list places the 15% cluster in "close" relationship with UWW. The latter list suggests disparities or differences between UWW and the 15% cluster.

Close Relationship Between UWW and 15%-Adults Units

In proponence, the 15% cluster of academic unit heads scored significantly higher than the 10% and 5% clusters AND is close to UWW concerning 11 items from the unit-head instrument:

Making it possible for students to accomplish requirements for some programs after 4 p.m. or on weekends

Allowing students to apply credit towards program requirements by successful (a) CLEP, (b) PEP, and (c) CEEB/AP examinations

Awarding credit toward degrees for demonstrable, college-level learning acquired in noncollegiate settings (other than by the six specified examination or equivalency methods)

Offering advising, a workshop, or other assistance to students in developing portfolios or other appropriate documentation for evaluating such learning

Offering remedial courses or programs (a) in the department, (b) in evenings or on weekends, and (c) off campus

Recognizing, through the faculty reward system, effort specifically aimed toward teaching (or otherwise serving) adult students

Sponsoring or participating in a workshop or other learning experience for staff members concerning needs needs of adult students

In usage, the 15% cluster of academic units scored significantly higher than the 10% and 5% clusters AND is close to UWW concerning three items:

Making it possible for some part-time students to accomplish requirements for some programs within the 10-semester limit

Making it possible for students to accomplish requirements for some programs after 4 p.m. or on weekends

Addressing, as part of or in addition to the department's ongoing faculty discussions, the topic of student learning styles

Interestingly, only one practice falls in the close-relationship category in both proponence and usage: making it possible for students to accomplish requirements for some programs after 4 p.m. or on weekends.

Differences Between UWW and 15%-Adults Units

In proponence, the 15% cluster of unit heads scored significantly higher than the 10% and 5% clusters, but is NOT CLOSE to UWW concerning five items in the unit-head instrument:

Offering an entire program through radio, telecommunications, computer-assisted or other mediated format

Allowing students to apply credit toward a degree program in the department through the equivalency procedures in ACE guides to (a) military education and (b) other kinds of training and in (c) the New York Regents guide to training experiences

Making advising available off campus

In usage, the 15% cluster of unit heads scored significantly higher than the 10% and 5% clusters, but is NOT CLOSE to UWW concerning five items:

Designing departmental brochures to reflect a desire to have age diversity among undergraduates

Making some effort, formal or informal, to attract adult students

Allowing students to apply credit toward program requirements in the department by successful (a) CLEP and (b) PEP examinations

Making advising available off campus

Only one practice lies in the disparity or difference category in both proponence and usage: making advising available off campus.

The close-relationship list suggests some common recognition of adult-student characteristics and needs in UWW and the 15% cluster. Whether the listed differences are simply reflective of the still-broad gaps in numbers of adults served or are indeed disparities in attitudes about how a unit should operate bears further investigation.

Adult Student Satisfaction

The Student Opinion Survey was used to determine the satisfaction levels of adult undergraduates with college services and environmental aspects. The instrument measures satisfaction with 23 services and 42 environmental aspects on a five-point scale ranging from (1) *very dissatisfied* to (5) *very satisfied*. Respondents are also asked to indicate whether they have used the 23 services.

Usable satisfaction data were received from 141 students. In the following portion of the chapter, their mean satisfaction scores are examined in several ways: for the total lists of items, by section (services, environmental aspects), in ranks of selected or "key" services and environmental aspects, in comparison to national norms, and in various breakdowns of local scores according to characteristics of respondents.

Scores within the local group were analyzed by analysis of variance and *a posteriori* contrasts. Comparisons of national-norm scores were accomplished via one-sample t tests; degrees of freedom were calculated as local group n-1. The assumption underlying the statistical procedures is that there are no significant differences in mean satisfaction scores for key items or their aggregate means among local subgroups of adult students, or between the local group of adult students and the national normative group. Figures used in statistical tests were the numbers of respondents per item, mean satisfaction scores, and standard deviations. Where reported in the text, standard deviations and numbers of respondents are listed in parentheses following the corresponding satisfaction scores; in tables, standard deviations are shown in parentheses underneath satisfaction scores.

Satisfaction scores were examined according to the three degree classification groups which were sampled for the study and according to age group, racial group, gender, and enrollment status. Table 23 illustrates those characteristics, plus a measure of work hours.

Table 23
Characteristics of Adult Student Respondents (n=145)
According to Sampling Unit (Degree Classification)

		Age Group			Gender		Enrollment Status	
	N	25-29	30-39	40 & Over	Male	Female	Part-time	Full-time
University Without Walls	73	14%	48%	38%	28%	72%	79%	21%
Bachelor of General Studies	4	0	50%	50%	50%	50%	75%	25%
Other Majors	68	65%	27%	8%	55%	45%	26%	74%

	Racial Group			Hours Employed Per Week			
	White	Non-white	Prefer Not Respond	None	1-20	21-40	Over 40
University Without Walls	83%	14%	3%	13%	10%	50%	27%
Bachelor of General Studies	100%	0	0	0	0	75%	25%
Other Majors	92%	5%	3%	41%	29%	27%	4%

The largest component of UWW students comprises white females aged 30-39 who work 21-40 hours per week and attend the university on a part-time basis. The largest component of Other Majors consists of white males aged 25-29 who are not employed (or who take occasional jobs) and who attend the university as full-time students. UWW students aged 40 and over outnumber Other Majors in that age group by nearly 5 to 1. Although there are relatively few persons in the Non-white group in the overall sample, those in UWW outnumber those in the Other Majors group by nearly 3 to 1.

According to information supplied by the instrument publisher, the oldest subgroup among the 86,366 students whose records constitute the normative data numbers 21,247 persons. It includes younger persons (23- and 24-year-olds) than does the local group. The instrument publisher does not claim extensive generalizability for the normative data, stating that while they are a composite representing "large and small, and public and private institutions from 43 states. . . ," they are not necessarily a "nationally representative report" (Student Opinion Survey Normative Data, [1987], p. [i]).

Visual Inspection of Local Scores

Some college services are used by most of the respondents, others by few. Most of the local mean satisfaction scores fall between 3.0, neutral, and 4.0, satisfied. A few place above 4.0 and a few between 2.0, dissatisfied, and 3.0.

Users of the 23 services listed in Section II who also indicated satisfaction levels range in number from 131 respondents who have used library services to five who have used day care services. Mean satisfaction scores for Section II services range from 4.54 (veterans' services, n=13) to 2.71 (parking facilities and services, n=125).

Respondents indicating satisfaction levels for Section III environmental aspects range in number from 140 who rated "this college in general" to 46 who rated residence hall rules and regulations. Mean satisfaction scores in Section III range from 4.11 (variety of courses offered by this college, n=139) to 2.37 (availability of student housing, n=51).

Section Means

Before the analysis was more narrowly focused on key items, mean satisfaction scores were calculated for Section II and Section III.

Section II Means: College Services

Adjusted for the varying numbers of users, the local group's mean satisfaction score for the 23 items in Section II is 3.53 (.62), on a five-point scale ranging from 1.0, very dissatisfied to 5.0, very satisfied. No statistically significant differences level were found in Section II means according to age group, gender, or degree-classification group (UWW/BGS/Other Majors). However, significant differences emerged when data were aggregated according to enrollment status, according to race, and when the Other Majors category was subdivided into the university's school, college, and faculty enrollment units. The Part-time students' mean, 3.83 (.50), is significantly higher than the Full-time students' mean, 3.44 (.67). The White group's mean, 3.70 (.56), is significantly higher than the Non-White mean, 3.36 (.65). In the school-college-faculty aggregation, the *a posteriori* contrast placed satisfaction scores for college services in this order:

Social and Behavioral Sciences	4.07 (sd=.31, n=3)
Food and Natural Resources	3.96 (sd=.45, n=11)
Humanities and Fine Arts	3.89 (sd=.34, n=11)
CASIAC	3.63 (sd=.41, n=9)
Natural Sciences and Mathematics	3.61 (sd=.52, n=6)
Education	3.57 (sd=.21, n=3)
Health Sciences	3.53 (sd=.94, n=5)
Engineering	3.45 (sd=.64, n=12)
School of Management	2.63 (sd=.86, n=5)

(The School of Physical Education was not represented in the respondent group, and a one-member "Other" cell was excluded from the ANOVA procedure.)

Section III Means: College Environment

The local group´s mean satisfaction score for the 42 environmental aspects in Section III is 3.51 (.47). No statistically significant differences at the .05 level were found when respondent data were statistically compared according to race, gender, or degree-classification group (UWW/BGS/Other Majors), or when the Other Majors category was divided into school, college, and faculty units. Significant differences emerged when data were aggregated according to age group and to enrollment status. The section mean satisfaction score of the 40 & Over students, 3.70 (sd=.46, n=34) is significantly higher than the score of the students aged 25-29, 3.48 (sd=.49, n=53) and the students aged 30-39, 3.43 (sd=.45, n=54). The Part-time mean, 3.62 (sd=.43, n=76) is significantly higher than the Full-time mean, 3.38 (sd=.49, n=65).

Ranking Key Items

Key items were selected for more detailed analysis. They are the 10 services and 20 environmental aspects judged to have close content relationship to other components of the study.

Key items were ranked (services and environmental aspects separately) according to the mean satisfaction scores of those who responded to each item (see Tables 24 and 25). In Table 24, the mean scores represent only those persons who "have used" the service and who also marked a satisfaction level. (Section III featured a Does Not Apply choice rather than the usage stipulation.)

Comparisons with National Normative Group

Mean satisfaction scores of the local group for the key items were statistically compared with corresponding national normative scores via a one-sample t test. Relevant figures are displayed in the first two data columns of Tables 26 and 28.

The numbers of norm-group respondents to the 10 key services range from 1,620 to 17,640. Local-group and and norm-group satisfaction scores for the key services do not differ statistically.

Table 24
Mean Satisfaction Scores for Selected College Services
(n=141)

College Service or Program	Number and Percent Using Service and Indicating Satisfaction Level	Mean Satisfaction Score
Library facilities/services	128 (90.8%)	4.05
Academic advising services	101 (71.6%)	3.68
Financial aid services	59 (41.8%)	3.64
College orientation program	65 (46.1%)	3.63
Student employment services	29 (20.6%)	3.59
Career planning services	28 (19.9%)	3.57
College-sponsored tutorial services	7 (5.0%)	3.57
Personal counseling services	31 (22.0%)	3.48
Job placement services	23 (16.3%)	3.30
Credit-by-examination program	11 (7.8%)	3.27
Mean, selected services		3.79

The numbers of norm-group respondents to the key environmental aspects range from 13,402 to 20,702. There are significant differences between the local and norm groups for 10 of the 20 key environmental

Table 25
Mean Satisfaction Scores for Selected Environmental Aspects
(n=141)

Environmental Aspect	Number and Percent Indicating Satisfaction Level	Mean Satisfaction Score
Flexibility to design own program of study	133 (94.3%)	4.09
Availability of advisor	138 (97.9%)	4.04
This college in general	140 (99.3%)	3.97
Instruction in major field	120 (85.1%)	3.90
Course content in major field	125 (88.7%)	3.86
Value of information provided by advisor	138 (97.9%)	3.86
Attitude of faculty	139 (98.6%)	3.81
Out-of-class availability of faculty	134 (95.0%)	3.78
College catalog/admissions publications	136 (96.4%)	3.63
Campus media (student newspaper, etc.)	110 (78.0%)	3.61
General admissions procedures	134 (95.0%)	3.60
Accuracy of information received before enrolling	132 (93.6%)	3.56
General registration procedures	135 (95.75)	3.33
Attitude of non-teaching staff toward students	125 (88.7%)	3.31
Student employment opportunities	76 (53.9%)	3.20
Student voice in college policies	100 (70.9%)	3.14
Concern for student as individual	135 (95.7%)	3.13
Student government	81 (57.4%)	2.90
Racial harmony	118 (83.7%)	2.75
Availability of desired courses at suitable times	135 (95.7%)	2.71
Mean, selected environmental aspects		3.55

aspects, the majority at the .01 level of significance. As Table 28 indicates, the local score is significantly higher for three environmental aspects: flexibility to design a program of study, availability of advisor, and campus media. The norm-group score is significantly higher than the local score for seven environmental aspects: attitude of faculty toward students, college catalog/admissions publications, attitude of non-teaching staff toward students, concern for student as an individual, student government, racial harmony, and availability of desired courses at suitable times.

Satisfaction Levels According to Group Characteristics

When satisfaction scores were statistically compared according to various characteristics of student respondents, significant differences were identified concerning more than half of key items. Tables 26 and 27 show subgroup sizes, mean satisfaction scores, and standard deviations concerning key college services. Tables 28 and 29 display similar figures concerning key environmental aspects. Symbols mark significant differences.

Key Services

Significant differences were found in mean satisfaction scores concerning five of the ten key services. The Part-time subgroup scored significantly higher than the Full-time subgroup for three of the five: academic advising services, career planning services, and college orientation program. The White subgroup scored significantly higher than the Non-White subgroup concerning financial aid services and student employment services. Degree classification and age group also influenced satisfaction with academic advising services: The UWW score is significantly higher than the Other Majors score, but the significant differences among age groups (indicated by analysis of variance) were not large enough for a particular subgroup to be pinpointed by *a posteriori* contrasts.

Key Environmental Aspects

Thirteen of the 20 key environmental aspects emerged as areas of significant variation when data were compared according to degree classification, age group, racial group, gender, and enrollment status.

Findings Across Four Aggregations. Three of the 13 aspects brought out significant satisfaction differences across four characteristics of respondent groups: flexibility to design one´s program of study, availability of advisor, and value of information provided by advisor. For all three the pattern of statistically significant difference is as follows: The UWW degree subgroup scored higher than the Other Majors subgroup; the 40 & Over and the 30-39 age subgroups scored higher than the 25-29 age subgroup; the Female subgroup scored higher than the Male subgroup; and the Part-time subgroup scored higher than the Full-time subgroup.

Findings Across Two Aggregations. Significant differences in satisfaction with "this college in general" were found when data were aggregated by age and racial group. The score of the 40 & Over age subgroup is significantly higher than both the 30-39 and 25-29 age subgroups. Both the White and the small Prefer Not to Respond racial subgroups have significantly higher scores than the Non-White racial subgroup.

Significant differences in satisfaction with concern for the student as an individual were identified when data were aggregated by degree classification and enrollment status. The satisfaction score of the UWW majors subgroup is significantly higher than that of the Other

Majors subgroup. The Part-time subgroup's score is significantly higher than the Full-time subgroup's score.

Differences Within Single Aggregations. Eight additional differences in satisfaction level emerged from statistical analyses, but each in only one aggregation of data. Three of the eight findings came from grouping data in the three degree classifications used for drawing the survey sample. Other Majors scored significantly higher than UWW majors in satisfaction with racial harmony and with the availability of courses at suitable times. Variation among degree groups in satisfaction with course content was identified by analysis of variance, but the *a posteriori* contrast did not pinpoint the significantly differing group or groups.

The Other Majors subgroup was further disaggregated into the academic (school, college, and faculty) units enrolling those students to investigate additional major-related variations in satisfaction. The ANOVAs indicated only one area of significant difference, in satisfaction with general registration procedures; however, differences were too slight to be separated by the *a posteriori* contrasts.

Three findings emerged from clustering of scores by age group. The 40 & Over subgroup's satisfaction score is significantly higher than the 30-39 subgroup's score for faculty attitude toward students. Both the 40 & Over and the 25-29 subgroups scored significantly higher than the 30-39 subgroup in satisfaction with campus media. The 25-29 subgroup's satisfaction score for student employment opportunities is significantly higher than the 30-39 subgroup's score.

In the racial group aggregation, one additional finding emerged. In satisfaction with attitude of non-teaching staff toward students, the score of the White subgroup is significantly higher than that of the Non-White subgroup.

Cumulative Differences. In two aggregations of satisfaction data, variation accumulated across key environmental aspects sufficiently to be reflected in significantly differing sectional mean scores. The 40 & Over subgroup has the significantly higher mean satisfaction score than the 30-39 and 25-29 age subgroups for 20 environmental aspects. At this same summary point, the Part-time subgroup´s score is significantly higher than the Full-time subgroup´s score.

Consistent Influences

In the majority of instances cited above, the UWW subgroup´s score is significantly higher than the Other Majors score, the older groups´ scores are significantly higher than the younger group´s, the Female group´s score is significantly higher than the Male group´s, the Part-time students´ score is significantly higher than the Full-time students´, and the White group´s score is significantly higher than the Non-White group´s. Two subgroups, the BGS degree group and the Prefer Not to Respond racial group, are too small to figure prominently in statistical comparisons (see summary table in Appendix D.)

Another measure of student satisfaction is in the suggestions they offered, in response to an open-ended question, for changes in university policies, practices, attitudes, or behavior. The results of content-analyzing this non-quantitative data are introduced in the Potential Responsiveness ("climate") section of this chapter. Additional findings from the satisfaction scale are brought into that discussion.

Table 26
Satisfaction Levels of Adult Undergraduates (n=141) with Key College Services, in Comparison to National Norms and According to Degree Group and Age Group

	NATIONAL NORMATIVE GROUP		LOCAL GROUP													
			Total		Degree Classification Group						Age Group					
					UWW		BGS		Oth. Maj.		25-29		30-39		40 & over	
	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)
Academic advising services	14131	3.76 (1.02)	101	3.68 (1.19)	47	4.04 (1.12)	4	3.50 (1.29)	50	3.36 (1.17)	43	3.35* (1.19)	35	3.86* (1.09)	23	4.04* (1.22)
Personal counseling services	4164	3.95 (1.03)	31	3.48 (1.48)	17	3.65 (1.69)	1	5.00 --	13	3.15 (1.14)	12	3.25 (1.29)	7	3.00 (1.60)	12	4.00 (1.59)
Career planning services	3839	3.69 (1.10)	28	3.57 (1.10)	12	3.75 (1.05)	0	-- --	16	3.44 (1.15)	13	3.38 (.87)	10	3.60 (1.50)	5	4.00 (.71)
Job placement services	3262	3.42 (1.18)	23	3.30 (1.29)	5	2.80 (1.48)	0	-- --	18	3.44 (1.25)	13	3.31 (1.11)	5	3.20 (1.79)	5	3.40 (1.52)
Library/ facilities and services	17640	3.93 (1.00)	128	4.05 (.89)	62	4.00 (.83)	4	4.00 (.82)	62	4.10 (.97)	50	4.10 (.97)	49	3.92 (.95)	29	4.17 (.60)
College-sponsored tutorial services	3273	3.79 (1.06)	7	3.57 (1.51)	1	5.00 --	0	-- --	6	3.33 (1.50)	5	3.80 (1.09)	1	1.00 --	1	5.00 --
Financial aid services	10247	3.76 (1.19)	59	3.64 (1.16)	24	3.33 (1.05)	1	4.00 --	34	3.85 (1.21)	27	3.89 (1.19)	23	3.30 (1.06)	9	3.78 (1.20)

(continued)

Table 26, continued

	NATIONAL NORMATIVE GROUP		LOCAL GROUP													
			Total		Degree Classification Group						Age Group					
					UWW		BGS		Oth. Maj.		25-29		30-39		40 & over	
	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)
Student employment services	3825	3.76 (1.07)	29	3.59 (1.24)	5	2.80 (1.30)	1	4.00 --	23	3.74 (1.21)	18	4.00 (1.03)	7	2.86 (1.34)	4	3.00 (1.41)
College orientation program	7044	3.68 (.98)	65	3.63 (1.05)	26	3.85 (.88)	0	-- --	39	3.49 (1.14)	33	3.51 (1.20)	23	3.87 (.69)	9	3.44 (1.24)
Credit-by-examination program	1620	3.90 (1.01)	11	3.27 (1.01)	4	3.25 (1.71)	0	-- --	7	3.29 (.49)	6	3.17 (.41)	3	4.00 (1.00)	2	2.50 (2.12)
Section		3.79 (n/c)		3.79 (.77)		3.89 (.78)		3.85 (.69)		3.69 (.75)		3.70 (.75)		3.78 (.78)		3.96 (.78)

Note. Satisfaction scores were calculated from responses on a five-point scale ranging from (1) *very dissatisfied* to (5) *very satisfied*. Analyses of variance (F tests) were conducted at $p \leq .05$. F tests were distributed on c-1 and n-c-1 degrees of freedom, where n is the total sample size and c is the number of classifications.

Symbols. In any one row (between vertical lines) a score in a rectangle is significantly different from (higher or lower than) the underlined score(s). (See pages 94-96 for rationale of symbol system.)

*Analysis of variance indicated significant differences among subgroups, but *a posteriori* contrast tests did not pinpoint subgroups having greatest influence on those differences.

Table 27
Satisfaction Levels of Adult Undergraduates (n=141) with Key College Services, According to Racial Group, Gender, and Enrollment Status

	LOCAL GROUP															
	Total		Racial Group						Gender				Enrollment Status			
			White		Non-white		Prefer not respond		Male		Female		Full-time		Part-time	
	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)
Academic advising services	101	3.68 (1.19)	89	3.69 (1.18)	7	3.71 (1.60)	3	4.00 --	43	3.51 (1.30)	58	3.81 (1.10)	49	$\underline{3.22}$ (1.26)	52	$\boxed{4.11}$ (.94)
Personal counseling services	31	3.48 (1.48)	28	3.57 (1.48)	2	2.00 (1.41)	1	4.00 --	12	3.25 (1.29)	19	3.63 (1.60)	16	3.25 (1.57)	15	3.73 (1.39)
Career planning services	28	3.57 (1.10)	25	3.68 (1.03)	2	2.50 (2.12)	1	3.00 --	13	3.54 (1.20)	15	3.60 (1.05)	16	$\underline{3.19}$ (1.22)	12	$\boxed{4.08}$ (.67)
Job placement services	23	3.30 (1.29)	21	3.38 (1.24)	1	1.00 --	1	4.00 --	12	3.67 (1.07)	11	2.91 (1.45)	21	3.29 (1.35)	2	3.50 (.71)
Library/ facilities and services	128	4.05 (.89)	112	4.09 (.82)	11	3.73 (1.19)	4	3.75 (1.89)	53	4.13 (.76)	75	3.99 (.98)	61	3.98 (.94)	67	4.10 (.85)
College-sponsored tutorial services	7	3.57 (1.51)	5	4.00 (1.22)	1	1.00 --	1	4.00 --	4	3.50 (1.00)	3	3.67 (2.31)	6	3.33 (1.50)	1	5.00 --
Financial aid services	59	3.64 (1.16)	49	$\boxed{3.76}$ (1.13)	6	$\underline{2.50}$ (1.05)	2	3.50 (.71)	29	3.72 (1.10)	30	3.57 (1.22)	42	3.71 (1.25)	17	3.47 (.87)

(continued)

Table 27, continued

	LOCAL GROUP															
	Total		Racial Group						Gender				Enrollment Status			
			White		Non-white		Prefer not respond		Male		Female		Full-time		Part-time	
	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)
Student employment services	29	3.59 (1.24)	25	$\boxed{3.72}$ (1.14)	3	$\underline{2.00}$ (1.00)	1	5.00 --	15	3.80 (1.01)	14	3.36 (1.45)	29	3.58 (1.24)	0	-- --
College orientation program	65	3.63 (1.05)	60	3.65 (1.09)	2	3.50 (.71)	3	3.33 (.58)	29	3.62 (1.15)	36	3.64 (.99)	35	$\underline{3.37}$ (1.21)	30	$\boxed{3.93}$ (.74)
Credit-by-examination program	11	3.27 (1.01)	9	3.33 (1.12)	1	3.00 --	1	3.00 --	7	3.00 (1.15)	4	3.75 (.50)	7	3.29 (.76)	4	3.25 (1.50)
Section		3.79 (.77)		$\boxed{3.84}$ (.72)		$\underline{3.37}$ (1.13)		3.58 (.83)		3.73 (.78)		3.83 (.77)		$\underline{3.53}$ (.82)		$\boxed{4.02}$ (.64)

Note. Satisfaction scores were calculated from responses on a five-point scale ranging from (1) *very dissatisfied* to (5) *very satisfied*. Analyses of variance (F tests) were conducted at $p \leq .05$. F tests were distributed on c-1 and n-c-1 degrees of freedom, where n is the total sample size and c is the number of classifications.

Symbols. In any one row (between vertical lines) a score in a rectangle is significantly different from (higher or lower than) the underlined score(s). (See pages 94-96 for rationale of symbol system.)

Table 28
Satisfaction Levels of Adult Undergraduates (n=141) with Key Environmental Aspects, in Comparison to National Norms and According to Degree Group and Age Group

	NATIONAL NORMATIVE GROUP		LOCAL GROUP													
			Total		Degree Classification Group						Age Group					
					UWW		BGS		Oth. Maj.		25-29		30-39		40 & over	
	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)
Course content in major field	20261	3.87 (.93)	125	3.86 (.93)	58*	3.72 (1.02)	3*	3.00 (1.00)	64*	4.03 (.80)	48	4.00 (.82)	44	3.77 (.96)	33	3.79 (1.02)
Instruction in major field	20060	3.92 (.92)	120	3.90 (.94)	55	3.82 (.98)	3	3.33 (.58)	62	4.00 (.90)	46	4.02 (.91)	42	3.83 (.88)	32	3.81 (1.06)
Out-of-class availability of faculty	20211	3.89 (.92)	134	3.78 (.91)	65	3.86 (.81)	4	3.25 (1.26)	65	3.74 (.99)	49	3.76 (.92)	52	3.71 (.89)	33	3.94 (.93)
Faculty attitude toward students	20702	$\boxed{3.99}$ (.96)	139	$\underline{3.81}$ (.92)	69	3.83 (.92)	4	4.00 (.82)	66	3.79 (.94)	53	3.68 (.96)	53	$\underline{3.74}$ (.94)	33	$\boxed{4.15}$ (.75)
Flexibility to design own program of study	19004	$\underline{3.55}$ (1.05)	133	$\boxed{4.09}$ (1.00)	71	$\boxed{4.58}$ (.77)	4	4.25 (.96)	58	$\underline{3.48}$ (.94)	48	$\boxed{3.75}$ (1.02)	52	$\underline{4.19}$ (.89)	33	$\underline{4.42}$ (1.03)
Availability of advisor	19935	$\underline{3.82}$ (1.01)	138	$\boxed{4.04}$ (1.01)	70	$\boxed{4.44}$ (.79)	4	4.25 (.96)	64	$\underline{3.59}$ (1.05)	51	$\boxed{3.65}$ (1.07)	54	$\underline{4.28}$ (.81)	33	$\underline{4.27}$ (1.04)
Value of information provided by advisor	19786	3.71 (1.06)	138	3.86 (1.15)	70	$\boxed{4.27}$ (.91)	4	3.75 (1.26)	64	$\underline{3.41}$ (1.22)	52	$\boxed{3.37}$ (1.24)	53	$\underline{4.17}$ (.97)	33	$\underline{4.12}$ (1.02)
General admissions procedures	20531	3.62 (.94)	134	3.60 (.86)	64	3.50 (.84)	4	3.50 (1.29)	66	3.70 (.86)	50	3.66 (.96)	52	3.46 (.73)	32	3.72 (.89)
Accuracy of pre-enrollment information	19999	3.64 (.96)	132	3.56 (1.00)	66	3.61 (.93)	3	2.67 (1.15)	63	3.56 (1.06)	51	3.57 (1.08)	53	3.55 (.84)	28	3.57 (1.14)
Catalog/admissions publications	20344	$\boxed{3.82}$ (.85)	136	$\underline{3.63}$ (.89)	66	3.64 (.85)	4	4.00 (.82)	66	3.61 (.94)	53	3.55 (.97)	52	3.54 (.80)	31	3.94 (.85)

(continued)

Table 28, continued

	NATIONAL NORMATIVE GROUP		LOCAL GROUP													
			Total		Degree Classification Group						Age Group					
					UWW		BGS		Oth. Maj.		25-29		30-39		40 & over	
	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)
Student voice in college policies	17003	3.09	100	3.14	43	3.12	1	3.00	56	3.16	44	3.14	34	2.97	22	3.41
		(.91)		(.92)		(.79)		--		(1.02)		(1.09)		(.80)		(.67)
General registration procedures	20664	3.43	135	3.33	66	3.21	4	3.25	65	3.45	52	3.38	50	3.20	33	3.42
		(1.10)		(.87)		(.83)		(.96)		(.90)		(.95)		(.81)		(.83)
Availability of desired courses at suitable times	20210	$\boxed{3.07}$	135	$\underline{2.71}$	65	$\underline{2.49}$	4	2.25	66	$\boxed{2.95}$	52	2.79	51	2.59	32	2.78
		(1.18)		(1.12)		(1.10)		(.50)		(1.11)		(1.27)		(1.00)		(1.04)
Concern for student as individual	20549	$\boxed{3.56}$	135	$\underline{3.13}$	67	$\boxed{3.36}$	4	2.75	64	$\underline{2.91}$	50	3.04	53	3.11	32	3.28
		(1.05)		(1.05)		(.90)		(1.50)		(1.12)		(1.05)		(1.03)		(1.08)
Attitude of non-teaching staff towards students	19631	$\boxed{3.61}$	125	$\underline{3.31}$	61	3.43	3	3.33	61	3.20	48	3.27	49	3.16	28	3.64
		(.97)		(.95)		(.88)		(.58)		(1.03)		(.92)		(.90)		(1.06)
Racial harmony at this college	19579	$\boxed{3.72}$	118	$\underline{2.75}$	57	$\underline{2.51}$	3	3.33	58	$\boxed{2.95}$	46	2.76	46	2.59	26	3.00
		(.88)		(.94)		(.97)		(.58)		(.87)		(.92)		(.91)		(.98)
Opportunities for student employment	13402	3.32	76	3.20	25	3.04	1	3.00	50	3.28	39	$\boxed{3.33}$	24	$\underline{2.79}$	13	3.54
		(.90)		(.95)		(1.02)		--		(.93)		(.90)		(.98)		(.88)
Student government	14920	$\boxed{3.22}$	81	$\underline{2.90}$	29	2.86	1	3.00	51	2.92	39	2.95	29	2.72	13	3.15
		(.82)		(.85)		(.74)		--		(.91)		(.92)		(.88)		(.37)
Campus media (student newspaper, radio, etc.)	17282	$\underline{3.39}$	110	$\boxed{3.61}$	49	3.63	3	3.67	58	3.59	44	$\underline{3.81}$	43	$\boxed{3.23}$	23	$\underline{3.91}$
		(.93)		(.86)		(.86)		(.58)		(.88)		(.72)		(.95)		(.67)
This college in general	20677	3.94	140	3.97	70	3.49	4	3.75	66	3.97	53	$\underline{3.94}$	53	$\underline{3.77}$	34	$\boxed{4.32}$
		(.85)		(.79)		(.79)		(.50)		(.80)		(.79)		(.82)		(.59)
Section		3.63		3.55		3.62		3.47		3.49		$\underline{3.48}$		$\underline{3.49}$		$\boxed{3.78}$
		(n/c)		(.53)		(.50)		(.78)		(.55)		(.55)		(.49)		(.53)

See Table 26 footnotes for explanation of figures displayed and of symbol system for identifying significant differences.

*Analysis of variance indicated significant differences among subgroups, but a posteriori contrast tests did not pinpoint subgroups having greatest influence on those differences.

Table 29
Satisfaction Levels of Adult Undergraduates (n=141) with Key Environmental Aspects, According to Racial Group, Gender, and Enrollment Status

	LOCAL GROUP															
	Total		Racial Group						Gender				Enrollment Status			
			White		Non-white		Prefer not respond		Male		Female		Full-time		Part-time	
	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)
Course content in major field	125	3.86 (.93)	112	3.82 (.95)	8	4.25 (.71)	3	4.33 (.58)	52	3.92 (.86)	73	3.82 (.98)	63	3.89 (.97)	62	3.84 (.89)
Instruction in major field	120	3.90 (.94)	107	3.86 (.96)	8	4.25 (.71)	3	4.33 (.58)	52	3.98 (.87)	68	3.84 (.99)	60	3.90 (1.02)	60	3.90 (.86)
Out-of-class availability of faculty	134	3.78 (.91)	117	3.77 (.94)	11	3.82 (.75)	4	4.25 (.50)	57	3.77 (1.00)	77	3.79 (.85)	63	3.79 (1.02)	71	3.77 (.81)
Faculty attitude toward students	139	3.81 (.92)	120	3.84 (.92)	13	3.62 (.96)	4	3.75 (1.26)	58	3.81 (.96)	81	3.81 (.90)	65	3.78 (.93)	74	3.84 (.92)
Flexibility to design own program of study	133	4.09 (1.00)	114	4.09 (1.04)	13	4.00 (.71)	4	4.50 (.58)	54	$\underline{3.83}$ (1.11)	79	$\boxed{4.27}$ (.89)	59	$\underline{3.61}$ (1.05)	74	$\boxed{4.47}$ (.78)
Availability of advisor	138	4.04 (1.01)	120	4.02 (1.02)	12	4.17 (1.03)	4	4.50 (.58)	57	$\underline{3.81}$ (1.08)	81	$\boxed{4.21}$ (.93)	63	$\underline{3.70}$ (1.13)	75	$\boxed{4.33}$ (.79)
Value of information provided by advisor	138	3.86 (1.15)	121	3.81 (1.14)	12	4.00 (1.35)	4	4.50 (.58)	57	$\underline{3.56}$ (1.25)	81	$\boxed{4.06}$ (1.03)	63	$\underline{3.37}$ (1.30)	75	$\boxed{4.27}$ (.81)
General admissions procedures	134	3.60 (.86)	115	3.63 (.84)	13	3.38 (1.04)	4	3.75 (.50)	56	3.54 (.93)	78	3.64 (.80)	62	3.53 (.90)	72	3.65 (.82)
Accuracy of pre-enrollment information	132	3.56 (1.00)	113	3.52 (1.01)	13	3.85 (.99)	4	3.50 (1.00)	54	3.52 (1.06)	78	3.59 (.96)	62	3.47 (1.15)	70	3.64 (.83)
Catalog/admissions publications	136	3.63 (.89)	117	3.66 (.89)	13	3.46 (.97)	4	3.75 (.50)	57	3.65 (.95)	79	3.62 (.85)	61	3.51 (.99)	75	3.73 (.79)

(continued)

Table 29, continued

	LOCAL GROUP															
	Total		Racial Group						Gender				Enrollment Status			
			White		Non-white		Prefer not respond		Male		Female		Full-time		Part-time	
	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)
Student voice in college policies	100	3.14	87	3.17	8	3.00	3	3.00	47	3.19	53	3.09	54	3.09	46	3.20
		(.92)		(.94)		(.92)		--		(.99)		(.86)		(.99)		(.83)
General registration procedures	135	3.33	117	3.38	13	3.00	4	2.75	55	3.45	80	3.24	62	3.39	73	3.27
		(.87)		(.87)		(.82)		(.96)		(.81)		(.90)		(.93)		(.82)
Availability of desired courses at suitable times	135	2.71	118	2.74	12	2.33	3	3.67	57	2.88	78	2.59	64	2.78	71	2.65
		(1.12)		(1.13)		(.98)		(.58)		(1.10)		(1.12)		(1.16)		(1.08)
Concern for student as individual	135	3.13	116	3.11	13	3.15	4	3.50	54	3.15	81	3.11	63	$\underline{2.84}$	72	$\boxed{3.38}$
		(1.05)		(1.09)		(.80)		(.58)		(1.00)		(1.08)		(1.12)		(.91)
Attitudes of non-teaching staff towards students	125	3.31	108	$\boxed{3.37}$	11	$\underline{2.64}$	4	3.50	52	3.23	73	3.37	63	3.19	62	3.44
		(.95)		(.96)		(.81)		(.58)		(1.00)		(.92)		(1.06)		(.82)
Racial harmony at this college	118	2.75	101	2.81	11	2.27	4	2.25	49	2.86	69	2.67	62	2.76	56	2.73
		(.94)		(.93)		(.90)		(.96)		(.93)		(.93)		(.99)		(.88)
Opportunities for student employment	76	3.20	63	3.25	9	2.78	2	3.50	36	3.22	40	3.18	50	3.20	26	3.19
		(.95)		(1.00)		(.67)		(.71)		(.96)		(.96)		(1.07)		(.69)
Student government	81	2.90	67	2.91	9	2.89	3	3.00	41	2.80	40	3.00	50	2.88	31	2.94
		(.85)		(.87)		(.93)		--		(.95)		(.72)		(.94)		(.68)
Campus media (student newspaper, radio, etc.)	110	3.61	95	3.66	9	3.44	4	3.25	50	3.44	60	3.75	59	3.56	51	3.67
		(.86)		(.84)		(1.01)		(.50)		(.88)		(.81)		(.95)		(.74)
This college in general	140	3.97	122	$\underline{4.02}$	12	$\boxed{3.42}$	4	$\underline{4.50}$	58	4.00	82	3.95	65	3.91	75	4.03
		(.79)		(.75)		(.67)		(1.00)		(.84)		(.75)		(.88)		(.70)
Section		3.55		3.57		3.42		3.70		3.51		3.58		$\underline{3.42}$		$\boxed{3.67}$
		(.53)		(.53)		(.59)		(.33)		(.57)		(.51)		(.56)		(.48)

See Table 26 footnotes for explanation of figures displayed and of symbol system for identifying significant differences.

Potential Responsiveness: Climates for Maintenance or Adoption of Effective Practices

Heretofore the analysis of data has been geared toward characterizing the present state of responsiveness to adult undergraduates at the University of Massachusetts at Amherst. The present state was shown to have as components both proponence for and usage of certain practices. First, the various practices were placed in rank order according to the number of proponents for each. Then the same practices were rank-ordered according to the number of units which use them. Subsequently, a major portion of the chapter was given to analyzing and comparing proponence and usage across various aggregations of respondent groups--unit heads, faculty, academic advisors, support-service heads, and heads of the Division of Continuing Education and University Without Walls.

Now the findings report turns to how potentially responsive the university is to adult undergraduates. For Parts 1 and 2 of that exercise in speculation, the ingredients are still proponence and usage, but the way they are viewed differs. For Parts 3 and 4, written responses to open-ended questions are the focus.

Part 1, Potential Responsiveness: Unit Heads, Faculty, Advisors

The analysis described in this section combines proponence and usage responses and imposes a weighting scheme upon the combinations in order to establish measures of "climate" for maintenance or adoption of the various practices. The rationale is that the nature of a climate or environment is assumed to have some relationship to the numbers in that environment of proponents who are users, of proponents who are not users, of non-proponents who are users, and of non-proponents who are non-users. Where high proponence and high usage are shown, a current practice will likely be maintained or continued. Where there are low proponence and low usage, a practice has little chance for adoption. In between those extremes, the prognosis is less clear.

A formula yielding a climate score for each item of practice in an instrument was developed. First, for each item of practice, the number of respondents in each of five categories was determined:

YY	Signifies that person responded "Yes" to proponent question, "Yes" to practice (usage) question
YN	Signifies that person responded "Yes" to proponent question, "No" to practice (usage) question
NY	Signifies that person responded "No" to proponent question, "Yes" to practice (usage) question
NN	Signifies that person responded "No" to proponent question, "No" to practice (usage) question
M(issing)	Signifies that person failed to respond to one or both questions with unambiguous "Yes" or "No"

Frequencies in each category, for each item of practice in turn, were entered into the following formula:

$$\text{Climate Score} = 4 \times (\text{No. YYs}) + 3\,(\text{No. YNs}) + 2\,(\text{No. NYs})$$
$$+ 1\,(\text{No. NNs}) + 0\,(\text{M})$$

For example, in response to "Being available for advising appointments outside weekday, daytime hours," 43 faculty "said" YY, 17 said YN, 3 said NY, 20 said NN, and 8 were in the M(issing) category. The climate score for the practice is thus 249. (The range of climate scores for items in the faculty instrument was from 118 to 325).

The mean and standard deviation of the climate scores in each instrument were determined. Practices whose climate scores are more than one standard deviation *above* the mean were set apart, defined as being in a warm climate (that is, as being most likely candidates) for maintenance or adoption in this university. Practices whose climate scores are more than one standard deviation *below* the mean were also set apart, defined as being in a cool climate (that is, as being least likely candidates) for adoption. The number of practices set apart in either climate area is, understandably, a function of the variation of scores about the mean; this number varied from five to 10 practices.

Table 30 displays the warm-climate practices for each respondent group. As might be expected, those few practices at the very top of each warm list are familiar, having been identified early in the chapter as in wide use. For them the new weighting scheme has little value, except to reinforce their status. A short distance from the top of the list, however, the blends of non-proponents and non-users with proponents and users begin to affect how warm the climate for a less-used practice might be.

Table 31 shows cool-climate practices. At this extreme, if the weighting scheme were not used, little could be said about the potential of practices which currently have little or no usage in the university. The weighting formula enables the user to speculate about potential usage on the basis of something more than simple non-usage.

Following are some practices which were elevated into warm climates by the formula: in departments and divisions, making honors or other accelerated courses available, and having faculty discussions about capabilities of student who complete programs; for faculty,

Table 30
"Warm" Climate for Maintaining or Adopting Practices, as Determined by Weighted Proponence/Usage Scores of Unit Heads, Faculty, and Advisors

"Warm" Climate for Maintenance or Adoption by Departments and Divisions

47. Making academic advising available within department (usage now high)
46. Accepting credits as equal to those of departmental courses for courses in day programs of other colleges and universities (usage now high)
45. Monitoring student progress in department (for planning or for identifying students in academic difficulty)
44. Designing departmental brochures to show program structure
43. Making Honors or other advanced/accelerated courses available in department
42. Maintaining good referral network with other advising sources on campus
41. Offering courses through Division of Continuing Education
40. Holding organized faculty discussion about what students completing program can do

"Warm" Climate for Maintenance or Adoption by Faculty

34. Supervising an independent study course (usage now high)
33. Advising about course substitutions, departmental examinations, other ways of making curriculum more flexible
32. Varying mode of delivery according to learning preferences in a class
31. Teaching interdisiplinary courses
30. Varying role in classroom according to needs of particular student group
29. Teaching course allowing student to develop individualized learning contract
28. Teaching course with experiential learning component (tie)
27. Varying amount of structure provided according to needs of particular class

"Warm" Climate for Maintenance or Adoption by Academic Advising Units

35. Providing information about personal and career counseling programs available on campus (usage now 100%)
34. Providing information about other academic advising sources on campus (usage now 100%)
33. Collecting demographic data about unit´s advisees (usage now high)
32. Collecting student descriptive data [class status, degree objective, etc.] about unit´s advisees (usage now high)
31. Collecting data on previous learning experience [transfer credit, credit by examination and equivalency, etc.] of unit´s advisees

Table 31

"Cool" Climate for Maintaining or Adopting Practices, as Determined by Weighted Proponence/Usage Scores of Unit Heads, Faculty, and Advisors

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"Cool" Climate for Maintenance or Adoption by Departments and Divisions

10. Offering an entire departmental program at off-campus locations
9. Making remedial programs available off campus
8. Offering an entire departmental program via radio, telecommunications, computer-assisted or other mediated format
7. Allowing students to apply credit towards program requirements by successful examination via PEP (ACT´s Proficiency Examination Program)
6. Offering one or more traditional departmental courses via correspondence study
5. Offering an entire departmental program via correspondence study
4. Offering an entire departmental program via independent study

Allowing students to apply credit towards program requirements through the equivalency procedures of

3. --New York Regents´ guide to programs in noncollegiate organizations
2. --ACE guide to military education } (tie)
1. --ACE guide to training programs } (tie)

"Cool" Climate for Maintenance or Adoption by Faculty

5. Leading national, regional, or local efforts related to adult learning or adult learners
4. Teaching, advising, or otherwise working with adult students in groups or agencies other than business/industry, human service agencies, governmental agencies, or continuing education units of other colleges or universities
3. Advising students at off-campus locations
2. Undertaking research or service having adult students as a focus
1. Teaching a course via correspondence study

"Cool" Climate for Maintenance or Adoption by Academic Advising Units

9. Advising students about courses offered via radio, telecommunications, computer-assisted or other mediated formats
8. Using computer-assisted academic advising for adults
7. Advising students about earning credit via correspondence study
6. Making some advising available off campus
5. Advising students about earning credit through equivalency procedures of ACE guide to military education
4. Collecting situational data [other than those listed in seven other categories] about advisees
3. Advising students about earning credit through equivalency procedures of ACE guide to training programs
2. Advising students about earning credit through equivalency procedures of New York Regents´ guide to programs in noncollegiate institutions
1. Advising students about earning credit by successful examination via PEP (ACT´s Proficiency Examination Program)

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teaching an interdisciplinary course. Some practices were moved out of the very bottom ranks and closer to the mean by the formula (perhaps improving their chances): in departments and divisions, sponsoring or participating in staff workshops about adult-student needs; for faculty, teaching "response" courses through DCE; for advisors, participating in a staff workshop about adult-student needs, and taking a leadership role in encouraging other advisors to broaden knowledge of adult learners.

Some practices were pushed into the very coolest climates by the formula: for faculty, advising at off-campus locations; and for advisors, advising students about earning credit via correspondence study and via PEP examinations.

The climate scores for all practices in the unit-head, faculty, and advisor instruments are listed in rank order in tables in Appendix D. Included with the lists are the numbers of YY, YN, NY, NN, and Missing scores for each practice.

Part 2, Potential Responsiveness: "Adult" Units and Support-Service Units

A simple comparison rather than a weighting formula determined disparities between proponence and usage concerning the 26 practices to which heads of support-service units, Division of Continuing Education, University Without Walls responded. Earlier, the varying numbers of support-service heads responding to the 26 practices lent themselves best to tables which simply rank practices according to percentages of proponents (Table 6) and to percentages of users (Table 10).

The examination now focuses on relationships between those two rank-ordered lists. The practices for which proponence and usage are uniformly high are labelled as being in a very warm climate (*i. e.*, as indicative of high responsiveness to adult undergraduates). Those for which a large gap appears between proponence and usage are singled out as being in a warm climate (*i. e.*, having the greatest potential for adoption or expansion). Cool-climate practices were not determined for this group because 50% or more proponence was identified for each of the 26 practices.

Very Warm Climate (High Responsiveness)

Proponence and usage are very high (100% in DCE, UWW, and support units) for seven of the 26 practices:

Coordinating services with other campus support units who have adult students among their clientele

Collecting demographic data about students served by the unit

Including information about academic program alternatives in orientation activities open to adult students

Providing information to advisees about other campus sources of academic advising

Providing information to advisees about campus sources of personal and career counseling

Having some persons in the unit who have undergone training or done special reading pertaining to the advising of adults

Undergoing self-study in the unit to identify academic support services needed by students (including adult students)

Warm Climate (Areas of Potential Change)

Because simple rankings are only approximate indicators of relationships, and because unrecognized biases may have influenced the selection of 26 practices from among many others in the interview protocols, only those eight practices for which the proponence figure is more than 20 percentage points higher than the usage figure are listed as warm-climate practices:

> Implementing or planning a needs assessment which includes attention to opinions of current adult students about (a) presently available programs and services and (b) services not presently provided
>
> (A similar item is the practice of establishing or maintaining a mechanism for gathering information from adult students to identify needed campus services)
>
> Establishing or maintaining a newsletter or other publication which provides information of special interest to adult students
>
> Encouraging one or more unit staff to undergo training or do special reading pertaining to services for adults
>
> Informing students enrolled in continuing education programs about a unit's support services
>
> Opening non-library learning resource centers [in support units] in evenings and on weekends
>
> Exploring the possibility of creating an office for directing and/or coordinating programs and services for adult students

Climates in DCE and UWW

When samples contain only one respondent each, as do those containing the heads of DCE and UWW, the term gap is not very meaningful. Thus a disparity between proponence and usage in a single unit is a superficial indicator of climate if qualifying information is lacking. The few proponence/usage mismatches in the 26 support-service practices--none in DCE, two data-collection practices and one about a peer assistance program in UWW--suggests instead that ongoing refinement (and perhaps comparison) of existing practices rather than adoption of new ones from the study instruments is a more productive focus of intra-unit discussion.

Part 3, Potential Responsiveness: Interpretations of Mission and Purpose

The Yes/No check-off items which are the largest components of the survey instruments have the advantages of being readily counted and analyzed. They have the disadvantages of inviting perhaps oversimplified choices and of limiting respondent input to the items chosen for inclusion in the instrument. For these reasons and because the mission and objectives sections of the Guide were difficult to translate into "proponent" and "practice" questions, two open-ended questions were asked of unit heads and faculty and two of advisors. Unit heads and faculty were asked how they would interpret university and department missions regarding the development and delivery of services to adults. Advisors were asked to interpret their advising unit´s purpose regarding attention to undergraduate age diversity, and to suggest a change in the unit which would improve responsiveness to adult students. Each group was also invited to add comments about survey items.

Nearly three-quarters, overall, of the unit-head, faculty, and advisor respondents who returned usable instruments supplied responses to at least one of the open-ended questions. Of 48 unit heads who returned usable instruments, 67% responded to the university mission question and 79% to the department mission question; 21% supplied other comments. Of 91 faculty who returned usable instruments, 71% responded to the university mission question and 70% to the department mission question; 31% supplied other comments. Of 49 advisors returning usable instruments, 78% responded to the purpose question and 84% to the change question; 41% added other comments.

Content Analysis Procedure

Responses were content-analyzed in a procedure which derived categorization schemes from the sets of responses themselves. Four categories were established for responses to each open-ended question and for "other" comments. The first category represents the general tone (positive, neutral, negative) of the response. The second, third, and fourth categories name specific classes of content.

Measures of inter-coder reliability were obtained by instructing another doctoral student in the categorization procedure. Inter-coder reliability statistics are reported at appropriate locations in the text. Details of the content analysis procedure and the inter-coder reliability procedure are in Appendix E, along with copies of categorization schemes.

The following report consists of an analysis of the unit affiliation and gender of respondents according to the general tone of their responses; a description of the largest classes of response content; and a brief report about additional remarks. For display in tables, most content classes representing fewer than 10% of a respondent group were collapsed into "miscellaneous" or "other" subcategories.

Tone of Responses to Open-Ended Questions

Table 32 displays response tone of the mission interpretations of the whole groups of unit heads and faculty and of their gender subgroups. Table 33 displays the tone of the purpose and change responses of the whole group of advisors and of their gender subgroups. Among unit heads, proportionately more males than females, and among faculty, proportionately more females than males provided generally positive responses to university mission and department mission questions. Proportionately more females than males wrote generally negative responses to mission questions. This uneven pattern is somewhat incongruous with earlier, quantitative findings (which were statistically significant although relatively few in number) placing females as higher scorers in proponence for and usage of practices effective with adults. Among advisors, proportionately more female than male responses to the purpose and change questions were generally positive, a result in line with outcomes of quantifiable components of the advisor instrument.

Table 32
Tone of Unit-Head and Faculty Responses to Open-Ended Questions

	Unit Heads			Faculty		
	GENDER			GENDER		
Tone	Total No. %	Male No. %	Female No. %	Total No. %	Male No. %	Female No. %
Interpretation of University Mission Regarding Service to Adults						
Generally positive	19 (59%)	17 (63%)	2 (40%)	46 (70%)	37 (68%)	9 (75%)
Neutral; undetermined	8 (25%)	6 (22%)	2 (40%)	16 (24%)	15 (28%)	1 (8%)
Generally negative	5 (16%)	4 (15%)	1 (20%)	4 (6%)	2 (4%)	2 (17%)
Totals	32	27	5	66	54	12
Interpretation of Department Mission Regarding Service to Adults						
Generally positive	28 (74%)	24 (77%)	4 (57%)	35 (55%)	28 (54%)	7 (58%)
Neutral; undetermined	7 (18%)	6 (19%)	1 (14%)	20 (31%)	18 (35%)	2 (17%)
Generally negative	3 (8%)	1 (3%)	2 (29%)	9 (14%)	6 (11%)	3 (25%)
Totals	38	31	7	64	52	12

Table 33
Tone of Advisor Responses to Open-Ended Questions

Tone	Total No. %	Male No. %	Female No. %
Interpretation of Advising-Unit Purpose Regarding Age Diversity among Undergraduates			
Generally positive	29 (74%)	17 (68%)	12 (86%)
Neutral; undetermined	7 (18%)	6 (24%)	1 (7%)
Generally negative	3 (8%)	2 (8%)	1 (7%)
Totals	39	25	14
Suggested Change in Unit to Increase Responsiveness to Adult Undergraduates			
Generally positive	26 (63%)	14 (56%)	12 (75%)
Neutral; undetermined	6 (15%)	5 (20%)	1 (6%)
Generally negative	9 (22%)	6 (24%)	3 (19%)
Totals	41	25	16

Tone distributions for unit heads, faculty, and advisors were combined into organizational groups (school, college, faculty, other advising unit). The groups were ranked in descending order by percentage of generally positive responses:

Unit of Affiliation	Tone of Responses to Open-Ended Questions		
	Generally Positive	Neutral	Generally Negative
CASIAC (includes advisors only)	91%	9%	0
College of Health Sciences	80	0	20%
Other advising units (includes advisors only)	73	9	18
Faculty of Humanities and Fine Arts	71	19	10
School of Education	69	22	9
College of Food and Natural Resources	61	23	16
Faculty of Social and Behavioral Sciences	60	33	7
Faculty of Natural Sciences and Mathematics	55	28	17
College of Engineering	45	41	14
School of Management	40	40	20

(The School of Health and Physical Education is unranked to maintain confidentiality for responses of the one PHE advisor.)

This ranking encourages speculation about variations in university climate for maintaining or adopting practices effective with adult undergraduates. In some cases, earlier findings are corroborated. But the tone of some units´ responses is incongruous with proponence and usage findings. Noteworthy is that the School of Education has a rather weakly positive tone in comparison to its consistently high degree of proponence for, and usage of, practices effective in serving adult undergraduates. The tone of Humanities and Fine Arts responses adds more optimism to HFA´s potential responsiveness to adults than was warranted by that unit´s usual position in proponence and usage (*i. e.*, HFA often scored lower than EDU and sometimes lower than Health Sciences, but was seldom significantly different from the other six units.)

Less dramatic a mismatch, probably, is that of the College of Engineering, whose response tone could be termed low positive/high neutral. ENG exhibited significantly higher usage of several effective practices, particularly alternative delivery modes, than did various other units.

A very interesting mix of circumstances is that CASIAC, whose responses to open-ended questions are ranked most positive in tone among the 11 units, had only 3.7% adult students among its nearly 4,000 advisees in spring 1987. This is in line with the correlational finding that advisor proponence and usage seem to be somewhat independent of the proportions of adults they advise.

Finally, the lowest tone position of the School of Management could be seen as logical. MGT had only 2.2% adults among some 2,000 advisees in spring 1987.

Unit heads, faculty, and advisors were also combined into the two gender groups for an additional examination of tone categories. The high percentages of females in the positive-tone category blend with earlier findings placing females in significantly higher-scoring proponence positions. Unanticipated on the basis of earlier findings, however, was that proportionately more females than males also wrote generally negative-tone responses.

Gender Group	Tone of Responses to Open-Ended Questions		
	Generally Positive	Neutral	Generally Negative
Female unit heads, faculty, advisors	70%	12%	18%
Male unit heads, faculty, advisors	64%	26%	10%

University Mission Question

Unit heads were asked,

> As spokesperson for your department, how do you interpret this university's mission as it relates, either explicitly or implicitly, to the development or delivery of programs and services to adult students?

Faculty were asked,

> How do you interpret this university's missionas it relates, either explicitly or implicitly, to the development or delivery of programs and services to adult students?

First judgment: In overall tone, responses were characterized as Generally Positive, i. e., mission includes services to adults; Neutral (or doesn't know, gave too little information to classify as positive or negative concerning services to adults); or Generally Negative, i. e., sees no university mission to serve adults. Inter-coder reliability for judging this category was .91.

More faculty (70%) than unit heads (59%) wrote responses judged Generally Positive.

Responses in the Neutral and Generally Negative subcategories contain no additional content to be categorized. The Generally Positive responses were further analyzed for possible content in three classes (see Table 34):

First content class: reasons the university's mission includes service to adults. The most frequent kind of response is that age is not the major discriminating factor in determining who will be served by the university. About one third of the responses fell under this heading. About one fifth of the unit-head/faculty group cited type of institution (state, land-grant, university) as sufficient reason for serving adults. Inter-coder reliability here was .85.

Table 34
Characteristics of Positive Responses of Unit Heads and Faculty to "University Mission" Question

	Total		Unit Heads		Faculty	
	No.	%	No.	%	No.	%
Reasons University Mission Includes Service to Adults						
Type of institution (state, land-grant, university)	14	(21%)	3	(16%)	11	(24%)
Age not the major discriminating factor	22	(34%)	8	(42%)	14	(30%)
No reason given	29	(45%)	8	(42%)	21	(46%)
Total positive responses to University mission question	65		19		46	
University Mission to Adults Includes Special Positive Emphases						
Certain programs, approaches	14	(21%)	4	(21%)	10	(22%)
Extra effort needed to meet mission	9	(14%)	2	(11%)	7	(15%)
Misc. other positive emphases	13	(20%)	5	(26%)	8	(17%)
No special positive emphasis given in response	29	(45%)	8	(42%)	21	(46%)
Total positive responses to University mission question	65		19		46	
University Mission is to Adults but With Constraints						
Traditional functions, standards must be maintained (parallel to serving adults)	11	(17%)	2	(11%)	9	(20%)
Misc. other constraints	19	(29%)	8	(42%)	11	(24%)
No constraints in response	35	(54%)	9	(47%)	26	(56%)
Total positive responses to University mission question	65		19		46	

Second content class: special emphases or aspects which indicate that the university has a mission to adults. Most frequently mentioned were particular programs (such as continuing education and extension) or approaches suited to adults. Inter-coder reliability for this judgment was .78.

Third content class: constraints to be considered within a university mission that includes service to adults. The largest subcategory here contains comments indicating that demands of the profession or discipline have higher priority than service to adults. Inter-coder reliability for this judgment was 1.0.

Department Mission Question

Unit heads and faculty were asked,

> How do you interpret your department's mission as it relates, either explicitly or implicitly, to the development or delivery of programs and services to adult students?

First judgment: The determination of overall tone was in the same categories as were used for the university mission question (Generally Positive, Neutral, Generally Negative), with "department" substituted for "university" in the full definitions. Inter-coder reliability was .83.

More unit heads and faculty answered the department-mission question than responded to the university-mission question. In contrast to the university-mission question, more unit heads (74%) than faculty (55%) wrote responses judged generally positive.

Responses in the Neutral and Generally Negative tone subcategories contain no further classifiable content. Generally Positive responses, characterized in Table 35, were further content-analyzed for possible content in three classes:

First content class: reasons the department's mission includes service to adults. As was the case with university mission, about one

Table 35
Characteristics of Positive Responses of Unit Heads and Faculty to "Department Mission" Question

	Total		Unit Heads		Faculty	
	No.	%	No.	%	No.	%
Reasons Department Mission Includes Service to Adults						
Age not the major discriminating factor	22	(35%)	9	(32%)	13	(37%)
Type of department or school within University	14	(22%)	7	(25%)	7	(20%)
Other reasons	6	(10%)	2	(7%)	4	(11%)
No reason given	21	(33%)	10	(36%)	11	(31%)
Total positive responses to department mission question	63		28		35	
Department Mission to Adults Includes Special Positive Emphases						
Certain programs, approaches	33	(52%)	14	(50%)	19	(54%)
Misc. other emphases	20	(32%)	7	(25%)	13	(37%)
No special positive emphasis	10	(16%)	7	(25%)	3	(9%)
Total positive responses to department mission question	63		28		35	
Department Mission is to Adults but With Constraints						
Adults must meet criteria (be (motivated, come to campus)	7	(11%)	2	(7%)	5	(14%)
Resources determine extent of service to adults	7	(11%)	5	(18%)	2	(6%)
Traditional functions, standards must be maintained (parallel to serving adults)	7	(11%)	2	(7%)	5	(14%)
Profession/discipline demands are higher priority	8	(13%)	1	(4%)	7	(20%)
Service limited primarily to graduate students	6	(10%)	5	(17%)	1	(3%)
Misc. other constraints	11	(17%)	6	(21%)	5	(14%)
No constraints given	17	(27%)	7	(25%)	10	(29%)
Total positive responses to department mission question	63		28		35	

third of the positive-tone writers said age is not the major discriminating factor in determining who will be served by the department. Others cited the particular nature of a department as reason for serving adults. Inter-coder reliability for this judgment was .53, low because of an unresolved difference between principal and second coders concerning the specificity of one definition (see Content Analysis Procedure in Appendix E.)

Second content class: specific emphases or aspects of department mission to adults. One subcategory was judged to contain more than half of the positive-tone responses: the citing of particular departmental programs or approaches which are suited to adults. Inter-coder reliability for determinations in this category was .95.

Third content class: constraints to be considered within a department mission which includes service to adults. Four subcategories contain more than 10% of positive-tone responses, none more than 20%. More unit heads than faculty said resource constraints determine the extent of service to adults, and that their unit's service to adults is limited mostly to graduate students. More faculty than unit heads said adults must meet certain criteria, and that traditional functions and standards must also be maintained. Twenty percent of faculty whose responses were generally positive said the demands of their professions or disciplines hold higher priority than does service to adults. Inter-coder reliability for this category was .89.

Purpose-of-Advising-Unit Question

Academic advisors were asked,

> How you do you interpret the purpose of your advising unit as it relates to age diversity among undergraduates?

First judgment: Following the established pattern, responses were first judged according to overall tone: Generally Positive concerning attention to age diversity; Neutral (or doesn't know, unclassifiable as positive or negative concerning attention to age diversity); or Generally Negative concerning attention to age diversity. Inter-coder reliability for this judgment was .82.

Nearly 75% of advisor responses to the purpose question were generally positive, with females providing proportionately more of them, as shown in Table 36. All responses were further examined for possible content in three classes:

First content class: unit philosophy or stance regarding attention to age diversity. Two very similar but distinguishable concepts emerged in the categorization process: a philosophy of serving all students, students in general (labeled the "group" concept) and a philosophy of treating each advisee as an individual case (labeled the "individual" concept). Nearly half of the responses about unit purpose contained content in the "individual case" subcategory (see Table 36). About one fifth fell into the "group" subcategory and one fifth into an "explicit sensitivity to adults" subcategory. Inter-coder reliability for this judgment was .70.

Second content class: special functions ("evidence") regarding attention to age diversity. Comparatively few responses contained content in this category. The largest proportion was 15%, citing particular unit programs suited to adult students. Inter-coder reliability here was .77.

Third content class: constraints under which the unit operates while attending to age diversity. Small subcategories here (10% and

Table 36
Categories of Responses of Advisors
to "Purpose" Question

Category	Number	Percent
Unit has Philosophy or Stance Regarding Attention to Age Diversity		
Help all students, students in general ("group" concept)	7	(18%)
Treat each student as individual case ("individual" concept)	18	(46%)
Unit has explicitly stated sensitivity to adult students	8	(21%)
No philosophy or stance described in response	6	(15%)
Total response to purpose question	39	
Unit has Special Functions Regarding Attention to Age Diversity		
Promote/manage programs especially suited to adult students	6	(15%)
Use approaches especially suited to adult students	3	(8%)
Other special functions	2	(5%)
No special functions mentioned in response	28	(72%)
Total response to purpose question	39	
Unit Attends to Age Diversity, but with Constraints		
Requirements, standards must be observed	4	(10%)
Few or no adults seek unit's services	5	(13%)
No constraints cited in response	30	(77%)
Total response to purpose question	39	

13% of responses) referred to the necessity of maintaining standards and to stating that the unit has few or no adult advisees. Inter-coder reliability for this category was 1.0.

Change-in-Unit Question

Advisors were asked,

> If you were to change your unit's advising program to make it more responsive to the needs of adult undergraduate students, what ONE ASPECT would you change first?

Following the established procedure, four judgments were made of the responses to this question, but the last two produced nothing noteworthy. Nearly two-thirds of the responses were generally positive in tone, with proportionately more females than males writing the positive remarks. Inter-coder reliability for tone judgments was 1.0.

All change responses were analyzed for the type of change suggested. The largest content class, with 27% of the responses, contains staff changes, such as adding staff and training of present staff in methods of serving adults. The size of this subcategory complements the high proponence of advisors for staff workshops concerning adult-student needs. The next largest content subcategory (17% of the responses) concerns expanding hours of service. This somewhat clashes with advisors' generally low proponence for after-hours advising. Inter-coder reliability for content about changes was 1.0.

Other Comments

The request concluding unit-head, faculty, and advisor instruments was,

> Please use the space below for any clarifying or supplementary comments concerning survey items.
> THANK YOU FOR YOUR PARTICIPATION.

From 21% to 41% of the respondent groups wrote comments in addition to answering open-ended questions. Because content in these remarks often ranged beyond survey items, they were content-analyzed via the established procedures. Although inter-coder reliability figures were acceptable (ranging from .79 to 1.0), little additional insight was gained into the university climate for practices effective with adults. The majority of the remarks were neutral in tone, and most described personal situations or unit environments involving or implying involvement with adults.

Part 4, Potential Responsiveness:
Students' Suggestions for Change

The standardized instrument, Student Satisfaction Survey, has the advantages of ease in scoring and quantifying student responses about a wide range of college services and environmental aspects, and of having been used widely enough that normative group data are available. However, its disadvantages are that it has not been tailored specifically to this university and that it limits students' responses to choices on a rating scale. For these reasons, and because research on adult participation in higher education indicates that adult students like to have some influence on the course of their educational experiences, an open-ended question was included with the SOS:

> If you had the power to change any policies, practices,
> attitudes, or behaviors of this institution towards
> adult students, which TWO would you change first?

Of the 145 students who returned the SOS, 118 (81%) wrote responses in the space provided. Of the 118 comments, those of 97 students (82% of the commenters, 67% of all student respondents) contained suggestions for from one to 10 changes. By degree classification group, 77% of all University Without Walls students who returned the instrument wrote answers to the question, as did all four (100%) of responding Bachelor of General Studies students and 85% of responding

Other Majors. The numbers of students suggesting changes were: UWW, 44; BGS, 4; and Other Majors, 49. (A maximum of two change suggestions per student was included in the content analysis.)

Content Analysis Procedure

A categorization scheme was developed, partly derived from the responses themselves and partly based on a "barriers to participation" model described by Cross (1981), who synthesized several studies of potential participants in adult education. Her model posits three general kinds of barriers: *situational*, those arising from one's life circumstances and responsibilities; *institutional*, those created by the policies and procedures of educational institutions; and *dispositional*, those arising from one's feelings of personal inadequacy.

An adaptation of the the barriers model to an "obstacles to satisfaction" model was necessary for this study, for several major reasons: The student participants in this study were currently enrolled students at the time of the survey, not prospective enrollees barred from participation by insurmountable hurdles. The preliminary sorting and categorizing process produced little in the *dispositional* category (that is, expression about inner feelings of inadequacy), but a fair amount directed outward, at changing others' attitudes. Because institutional changes were asked for in the question, an *institutional/procedural* category of content was moved into place as the first content category for which responses were examined. The second category became those suggestions for change which reflect students' *life situations*, and the third an *attitudes of others* content category. (Additional details about the classification process and its rationale are in Appendix E.)

Categorizing student responses was a more subjective undertaking than judging university personnel responses. Ideally, a highly reliable categorization scheme for a content analysis has clearly discrete categories (Krippendorff, 1980, p. 88), yet the nature of participation in a higher-education institution works against such certainty. For example, wanting more after-hours courses (an *institutional/procedural* frustration) is not truly separable from wanting flexibility in meeting the demands of all of life's responsibilities (a *life-situational* frustration) or from wanting changes in faculty or staff attitudes about requirements and office hours (*attitudinal* conflicts). Thus categorizing suggestions for change became a matter of determining the dominant theme in the student's response; if a bias can be named, it is that because institutional changes were requested, more were expected which could be placed under that heading than under the other two.

A category was added in which judgments were made prior to those in the three categories above. Somewhat similar to the first category used for content-analyzing university personnel responses, it represents the overall tone of the response. Unlike the earlier first category, it was also used to denote the presence or absence of suggestions for change.

Following are a brief characterization of the respondent group; an analysis of overall tone and presence/absence of changes; a report of major types of change suggestions under three content headings; and some linkages of change categories to satisfaction scores and to the "barriers" literature.

Results are presented for the whole group and according to degree classification subgroups, but are not broken down by other respondent characteristics. Earlier findings concerning satisfaction with college aspects indicated that the degree designation of respondents, a key criterion because it determined the sampling frame for the survey, subsumes most of the other aggregating criteria used in analysis of the quantifiable data. However, in order to restablish a perspective on the two larger of the three degree groups, most of their dominant characteristics are repeated here: UWW students are more likely to be older than Other Majors and also more likely to have part-time enrollment status along with part- or full-time employment status; more than 70% of the UWW sample is female, compared to 45% of the Other Majors sample.

Tone of Response, with or without Change Suggestions

As shown in Table 37, the largest subcategory of responses in the tone category is Suggested Changes in a Predominantly Negative Context. This subcategory represents 60% of those who suggested changes. A response from an Other Majors students is one example:

> I would drop the students activity fee/health fee and other fees associated w/on campus living and not really associated w/older/off campus students. I did not use, or really have the option to use these offerings and I resented having to pay for them.
>
> There is also a very impersonal and bureaucratic attitude among the office and support personnel at the college. To get any discrepancy attended to concerning grades, documents, etc., proved to be a very aggravating experience. . . .

Proportionately more responses in this subcategory came from Other Majors (59%) than from UWW students (36%). Three of the four BGS students also wrote responses judged to belong in this subcategory.

Table 37
Tone of Student Responses to Open-Ended Question, Presence or Absence of Suggested Changes According to Degree Classification

Category	Total		DEGREE CLASSIFICATION UWW	BGS	Other Majors
Suggested change(s) only, or in neutral context	28	(19%)	16	1	11
Suggested change(s) in predominantly positive context	11	(7%)	7	0	4
Suggested change(s) in predominantly negative context	58	(40%)	21	3	34
(Subtotal: Students suggesting changes)	(97)		(44)	(4)	(49)
No changes suggested; predominantly positive comment	13	(9%)	8	0	5
No changes suggested; neutral or equally positive and negative comment	8	(6%)	4	0	4
No changes suggested; predominantly negative comment	0	0	0	0	0
(Subtotal: Students responding but not suggesting changes)	(21)		(12)	(0)	(5)
Did not respond to open-ended question	27	(19%)	17	0	10
TOTAL NUMBER OF INSTRUMENTS RETURNED	145	(100%)	73	4	68

The tone subcategory next in size, Changes Only and Changes in Neutral Context, is half the size of the largest one. This example was written by a UWW student:

> I would make an attempt to change the following policies or procedures:
> 1. Encourage broader range of core and major courses available in the evening and weekend for adult students
> 2. Extend business hours to obtain parking stickers, ID's, textbooks, and to correct billing problems

UWW students wrote more of these, proportionately, than did Other Majors students.

The smallest of the tone subcategories containing suggestions for change is Suggested Changes in a Predominantly Positive Context. An Other Majors student supplied this example:

> Need better information concerning the Engineering program and need some help choosing courses. Also some cross information about math and physics courses. I´m not talking about requirements alone -- also need some information and "orientation" in these areas to be better able to plan course of study. I do not see any problems towards adult students!

Institutional/Procedural Category

Twenty-eight students said that one of the first two changes they would make in the university would be to schedule more courses after 4 p.m. and on weekends. Of the 28, 25 are UWW students. This subcategory of suggestions, which heads the list in Table 38, accounts for one-fourth of all the analyzed suggestions for change, one-fourth of all suggestions in the Institutional/Procedural category, and one-half of UWW students´ suggestions in that category.

Following distantly behind are three subcategories of Institutional/Procedural changes, each of which drew 10% of the suggestions in the category. Eight of the 10 suggestions for making the activity/health fee structure more relevant or fair to adult students came from Other Majors (who are mostly full-time students and thus are assessed full fees). Twice as many Other Majors as UWW students would create greater flexibility in procedures involving deadlines and program requirements. Equal numbers of suggestions were offered by UWW and Other Majors students for improving relevance or quality of courses and/or instruction.

Table 38
Categories of Student Suggestions for Change

	DEGREE CLASSIFICATION			
	Total	UWW	BGS	Other Majors
Institutional/Procedural Category				
Schedule more courses after 4 p.m. and/or on weekends	28	25	1	2
Make courses/instruction more relevant, higher quality	10	5	0	5
Allow flexibility in core/general education requirements	5	2	0	3
Allow more flexibility in procedural matters	10	3	0	7
Make fee structure more fair for persons who don't need/use activities, health services, etc.	10	1	1	8
Broaden access (hours) to faculty, advisors, services	8	5	1	2
Improve articulation with DCE and UWW	3	3	0	0
Plan more social activities for adult students	5	2	0	3
Improve parking availability, solve parking problems	5	2	0	3
Improve availability, flow of information	7	2	0	5
Other changes (too cryptic to classify; not pertinent to policies concerning students)	10	1	2	7
Total in institutional/procedural category	101	51	5	45
Percentage of category total by degree classification	100%	50%	5%	45%
(Number of students represented)	(81)	(37)	(4)	(40)
Life-Situational Category				
Costs: Improve access to financial aid, cut delays	9	3	0	6
Increase child care services	7	2	0	5
Consider time lack, pressure of other responsibilities	3	1	1	1
Establish or increase places to study	5	1	0	4
Housing: Improve availability/suitability for adults	11	2	0	9
Total changes in life-situational category	35	9	1	25
Percent of category total by degree classification	100%	26%	3%	71%
(Number of students represented)	(34)	(9)	(1)	(24)

(continued)

Table 38, continued

Attitude of Others Category				
Change attitudes (source, content unspecified)	4	1	0	3
Change attitudes (source: faculty attitudes)	5	2	1	2
Change attitudes (source: staff attitudes)	3	2	0	1
Change attitudes (source: other students´ attitudes)	1	1	0	0
Change attitudes (content: race disharmony, other discrimination)	7	5	0	2
Change attitudes (content: failure to recognize adult status, work experience, prior learning)	10	5	0	5
Change attitudes (content: failure to treat students as individuals)	4	2	0	0
Total suggestions in attitudinal category	34	18	1	15
Percentage of category total by degree classificaion	100%	53%	3%	44%
(Number of students represented)	(31)	(15)	(1)	(15)

Life-Situational Category

Suggestions for changes in university housing availability and/or suitability for adult students account for a third of the suggestions in the Life-Situational category. Nine of the 11 responses (82%) were written by Other Majors. The second tier of Table 38 shows Life-Situational subcategories and their sizes. Even without the Housing subcategory, the number of Other Majors´ suggestions arising, according to the model, from conflicts in adult-life circumstances is double the number given by UWW students.

Attitudinal Category

One fifth of the suggestions which were content-analyzed concerned attitudes of others in the University. Largest of the attitude subcategories contains statements suggesting that neither adult status nor adult learning are adequately recognized, (especially that variety of the latter which has been obtained outside of, or prior to, enrollment in the university.

Ties to Satisfaction Levels

Because, one may assume, respondents wrote answers to the open-ended question shortly after completing the satisfaction components of the SOS, some comments have clearly discernible relationships to particular college services and/or environmental factors, especially those which drew low mean satisfaction scores (see list, pages 220-221). Standing out is the connection between the large group of suggestions that more evening/weekend courses be offered and the item ranked lowest in satisfaction among 20 selected environmental factors, "Availability of the courses you want at the times you can take them." Supportable but less confirmatory ties could be traced between suggestions for changes in racial attitudes and the low satisfaction score for "Racial harmony at this college," and between suggestions for changed attitudes towards adult status and towards students as individuals and the low satisfaction score for "Concern for you as an individual."

Had one of the selected environmental factors been "Satisfaction with purpose for which student activity fees are used," it too would have ranked near the bottom of the satisfaction list. Given this poor showing, the received suggestions for changes in the fee structure are predictable, although a greater number might have been expected. Two additional items not previously reported, mean satisfaction with "Residence halls rules and regulations" (a relatively low 2.98, n=46) and mean satisfaction with "Residence hall services and programs" (an even lower 2.79, n=15), can be tied to Other Majors´ suggestions for changes in housing policies for adults.

Ties to "Barriers" Research

The dominance of suggestions about expanding course schedules, plus the modest number of suggestions about improving course relevance, mesh with one conclusion in Cross´s (1981) synthesizing research on barriers to adult participation in educational experiences. Concerning the five general groups of institutional barriers she names, "potential learners complain most about inconvenient locations and schedules and about the lack of interesting or relevant courses" (p. 104). But two other Cross findings do not match results of the present content analysis: "The cost of education and lack of time lead all other barriers of any sort by substantial margins" (p. 100); neither area of suggested change loomed impressively large in local students´ comments. A possible explanation is that lack of money and lack of time are, indeed, actual *barriers* to participation, and that the adult students enrolled in this university (and therefore eligible to express themselves in the present survey) are those who have, for the time being, at least, surmounted those barriers.

Summary of Findings

Overall participation in the study was high, more than 80% overall. The completion rate of pencil-and-paper instruments was above 95%.

Proponence for practices effective in serving adult undergraduates is generally more extensive than anticipated, but is neither evenly distributed across the campus nor uniformly proportionate to the distribution of adult undergraduates. Usage of practices effective in serving adult undergraduates lags considerably behind proponence everywhere except the University Without Walls, the Division of Continuing Education, and some support units. However, very few practices are totally foreign to this university. Several suitable for a wide age range of students are solidly in place. Predictably, usage corresponds more closely than does proponence to the numbers of adult undergraduates served. A significant number of respondents expressed unfamiliarity or uncertainty about some practices; this was a somewhat unexpected outcome which prompted speculation that wider acquaintance might increase both proponence for, and usage of, those practices.

Responses to open-ended questions about the mission of the institution, the missions of departments and divisions, and the purposes of advising units as they relate to serving adult students paint a comparatively bright panorama of possibilities for older students. Some unit heads and faculty said age is not the prime determinant of university clientele, others that a land-grant or public institution must serve a wide range of constituents. Some advisors said each advisee must be regarded as an individual case. This positive tone becomes less so in the close-up view, where the number of practices in reasonably wide availability falls short of the amount of support for them. In that same close-up view loom the adult students who are less satisfied than a national norm group about some practices, and who are frustrated by what they perceive are institutional barriers.

Extent of Proponence

Practices having highest proponence in this university are those usable with a wide age range of students. They include making academic advising available, networking with other advising sources, accepting other colleges' traditional credits and this university's continuing-education credits, designing brochures to show program structure, teaching interdisciplinary and independent-study courses, advising students about flexibilities in the curriculum, collecting basic demographic data and educational progress data, coordinating support services with other services, and implementing needs assessments.

Practices having lowest proponence here are those involving the most extreme departures from traditional, campus-based programs--correspondence study, entire programs in "distance" formats, off-campus advising and remediation--and those limited primarily to adult students--credit-by-equivalency, research on adult students.

Extent of Usage

Usage rates fall off rapidly beyond the following group of practices in widest application: making academic advising available, accepting traditional transfer credits, supervising independent study courses, providing information about other advising and counseling sources, and collecting basic demographic and progress data about students. Practices requiring investment of disproportionate amounts of time or other resources in individual students are at intermediate usage points, as are some coordinating and needs-assessment activities. Lowest in usage are delivery modes which are the severest departures from a campus-centered structure, along with research and service focused on adult students and staff development activities geared to improving service to that population.

Responsiveness of Unit Heads and their Units

Unit heads, on the average, are proponents of about twice as many practices as are in use in their units, in roughly a 60%/32% ratio. The School of Education is significantly higher than several other academic units in proponence for and usage of alternate delivery modes and credit evaluation practices, and in usage of program information and delivery practices. The College of Health Sciences leads a few other units in overall proponence, specifically in proponence for credit evaluation practices. The College of Engineering is higher in usage of off-campus and media-delivered courses (see Hindsights, Appendix F).

The cluster of academic units (EDU + HSC) in which adult students constitute about 15% of the undergraduate enrollment is dominant in several areas of proponence and usage, notably program information and delivery practices and credit-by-examination practices. The 10%-adults cluster (Humanities and Fine Arts + Natural Sciences and Mathematics + Engineering) is significantly higher than the 5%-adults cluster in a few areas, such as offering courses through the Division of Continuing Education, monitoring student progress, and allowing development of individualized study programs. (The 5%-adults cluster comprises Food and Natural Resources, Social and Behavioral Sciences, Physical Education, and Management).

Responsiveness of Faculty

Overall, faculty are proponents of about twice as many practices as they customarily use, in a 70%/35% ratio. Statistically, faculty proponence varies very little across school-college-faculty units, adult-enrollment clusters, gender groups, academic ranks, or teaching levels. EDU faculty are significantly higher in usage of off-campus teaching and two modes of teaching through DCE. HSC faculty and SBS faculty show a higher rate of working with adults in human service agencies. School of Management faculty are significantly lower in proponence for giving positive consideration to the previous experience of a potential adult enrollee.

More than 80% of faculty are proponents of teaching "response" courses through DCE, but fewer than 10% do so. Nearly 90% are proponents of teaching DCE courses initiated by the faculty member or his/-her unit, but fewer than one-fourth do so.

Faculty members in units where 15% of the enrollment is adults lead in incorporating students' life experiences into course design, in giving positive consideration to the age of prospective adult enrollees, and in reading about adult college students. Less readily explainable is the 5%-adults cluster's dominance over the 10%-adults cluster in varying course structure and role of faculty according to perceived class needs, in supervising independent study courses, and in teaching courses which have an experiential-learning component.

Associate professors are greater proponents of helping students document noncollegiate, college-level learning and of holding faculty discussions about how students learn. Professors are greater proponents of local workshops about student learning and assessment. Professors also have a higher rate of working with University Without Walls students.

Regarding formal recognition for work with adult students, the 15%-adults cluster has a higher rate of mentioning such work in annual faculty reports and of receiving recognition for such work from sources outside the university. This group of faculty also leads in using course-design practices which (a) challenge students to higher stages of ego/personality development and moral/ethical development, (b) respond to diverse student learning styles, and (c) attempt to move students towards internal evaluation of their efforts.

Responsiveness of Academic Advisors

The gap between proponence and usage is narrower for academic advisors than for faculty or unit heads. Overall, advisors are proponents of 75% of the practices named in the advisor instrument, users of more than half of those practices. Proponence and usage are both relatively high for nearly half the practices in the instrument. At the top are advising students about personal counseling sources and other advising sources, advising students about independent study as an option, and helping students find ways (such as planning individualized majors) to make the curriculum more flexible.

Advisors in Social and Behavioral Sciences, Natural Sciences and Mathematics, and Health Sciences are significantly lower in proponence and usage concerning some data-collection practices. Engineering and Education advisor units lead in their rates of having staff who have taken special training or done special reading about advising adults.

Overall, advisors who have no adult advisees are lower in proponence than advisors who regularly see adult advisees. The "no adults" advisors lead, however, in suggesting continuing-education courses to their advisees. Advisors who advise many adults lead in proponence for and usage of credit-by-examination and credit-by-equivalency practices, and in taking leadership roles in encouraging or causing other advisors to broaden their knowledge of adult learners.

Although few in number, significant findings about the influence of faculty or staff advisor "role" consistently elevate staff advisors above faculty advisors in proponence. Support for individual initiative--for reading about adult students and for encouraging other advisors to increase knowledge of adult learners--seems to be a key factor.

Certain practices emerge repeatedly in analyses of advisor data (i. e., some findings overlap others). For having persons in the advising unit who have undergone training or done special reading about advising adults, proponence is higher among staff advisors, higher at the 1-A authority level, and higher among female advisors. In usage (actually having such trained persons), EDU and ENG lead other organizational units; advisors with adult advisees lead those without; staff advisors lead faculty advisors; and the 3-A group falls behind the other three authority levels. For undertaking special reading about adult students, the statistically significant leaders are advisors in the 15%-adults enrollment cluster, advisors with 1/2 or more adult advisees, and staff advisors. For causing other advisors to broaden their knowledge of adult learners, the greater proponents are female advisors and staff advisors. Those who lead in actually providing such encouragement are in the 15%-adults cluster and among advisors whose load is 1/2 or more adults.

One-fourth of the advisors who listed changes which would make their units more responsive to adult undergraduates suggested changes concerning staff. Such actions would involve the acquisition of additional personnel or the provision of special training for existing staff.

Responsiveness in Common Areas

Proponence and usage of unit heads, faculty, and advisors were compared across 27 topics common to two or all three of their survey instruments. Proponence and usage are high for the independent study mode, for networking among advising sources, and for advising students about flexibility in the curriculum. Proponence and usage are low for correspondence study, media-delivery modes, and equivalency methods of awarding credit.

Advisors are higher scorers than faculty or unit heads under 21 of the 27 common topics. Faculty are higher scorers under two topics, unit heads under none. Generally, advisors advise students about alternative course delivery modes at a greater rate than units make such modes available. Advising about credit by examination and equivalency is infrequent on this campus, but advisors use the practice more than units allow application of such credit to program requirements. Advisors are proponents of and participants in staff workshops about adult learners more extensively than unit heads support or sponsor such workshops.

Faculty are available for evening/weekend advising more than academic or advising units make such advising available. Faculty supervise independent study at a greater rate than units promote the mode.

Correlation of Broad Measures

Total-instrument proponence and usage scores of unit heads, faculty, and advisors in school, college, faculty, and other-advising-unit categories were compared to each other and to the proportions of adults enrolled in those categories. Significant positive correlations were found between all possible pairs of scores except those pairs in which one score was an advisors´ score. In other words, advisors´ proponence is highly correlated only with advisors´ usage of practices.

Climate for Adoption of Practices

Practices most likely to be maintained or adopted and practices least likely to be adopted were identified by combining and weighting the number of proponent/users, proponent/non-users, non-proponent/users, and non-proponent/non-users for each practice. Practices in the most advantageous position for continuance are those for which high proponence/high usage was characterized. These include making academic advising available in departments, accepting as equal the credits from other institutions´ day courses, supervising an independent study course, advising students about ways of making the curriculum more flexible, and providing information about personal and career counseling programs and other sources of academic advising on campus.

The practices at the very bottom of the climate or "likely" list are these: allowing students to apply credit-by-equivalency towards program requirements, offering an entire departmental program via independent study or correspondence study, teaching a course via correspondence study, undertaking research or service having adult students as a focus, and advising students about credit earnable via successful PEP (Proficiency Examination Program) completion or via the New York Regents´ testing program.

Responsiveness of University Without Walls

The University Without Walls unit head is a proponent of all but three of the 47 practices in the unit-head instrument. The three are offering traditional courses and entire programs through correspondence study and entire programs through independent study. The UWW unit head reported that neither those three nor the following three are used in UWW: offering courses and entire programs in media-delivery formats and collecting information about the reasons students drop out.

The UWW unit head is a proponent of all 26 of the support-function practices which were selected for characterizing campus support units alongside "adult" units. Not used in UWW are practices of collecting academic needs data and personal needs data, maintaining a peer assistance program, and informing Division of Continuing Education students about UWW´s support services.

The responsiveness of the 15%-adults enrollment cluster was compared to that of UWW. A close match in both proponence and usage was found for only one practice: making possible the completion of some program requirements after 4 p. m. or on weekends. Proponence matches were found for ten other practices, usage matches for two. The two are making possible the completion of final requirements by part-time students (for some programs) within the university's 10-semester limit, and including the topic of student learning styles in faculty discussions.

Responsiveness of the Division of Continuing Education

Neither the proponence of the DCE unit head for the 47 practices in the unit-head instrument nor the usage of those practices in DCE is known. Thus DCE and the 15%-adult enrollment cluster of academic units could not be compared.

The DCE unit head is a proponent of all 26 of the support-function practices selected for characterizing support services alongside "adult" units, and reports that all of those practices are used in DCE.

Responsiveness of Support Units

Twenty-six support unit practices out of a possible 196 were selected for analysis (see Hindsights, Appendix F). Exclusion of items pertinent to only one or two units, and inclusion of items to which at least six support units plus DCE and UWW responded allowed 22 support services to be represented in the findings. High proponence and usage exist for coordinating services with other campus support units, for providing information about personal and career counseling services and advising sources, and for having persons in the unit who are trained in or have read about advising adults. The greatest disparities between proponence (high) and usage (low) pertain to implementing needs assessments which include adult students' opinions, to sending a newsletter to adult students, to personally encouraging staff to seek training or reading about serving adults, to informing DCE students about support services, to opening non-library resource centers evenings and weekends, and to exploring the possibility of an office for coordinating programs and services for adult students.

Student Satisfaction

The rate of usage of many college services by adult undergraduates is low. Among 10 selected services, the usage range is from 5% (tutorial services) to 91% (library services). Group satisfaction with the 10 services ranges from just above satisfied (library services) to just above neutral (credit-by-examination program). The local group does not differ statistically from the national group in satisfaction with the 10 services.

Satisfaction with 20 college environmental aspects ranges from just above satisfied, for the flexibility to design one´s own program of study and for the availability of one´s advisor, to a low between neutral and dissatisfied for availability of courses at suitable times, for racial harmony, and for student government.

The local group´s satisfaction level is higher than the national norm group´s level concerning flexibility to design a program of study, availability of advisor, and campus media. The national group´s satisfaction level is higher than the local group´s with three human-interaction aspects--attitude of faculty and of non-teaching staff toward students and concern for students as individuals--and with course availability at suitable times, catalog/admissions publications, student government, and racial harmony.

Within the local group, membership in one of two degree classification groups appears to be closely related to variations in satisfaction. Students in University Without Walls are more satisfied than Other Majors students (those enrolled in traditional school, college, and faculty units) with five aspects: flexibility to design a program of study, availability of advisor, value of information provided by advisor, faculty attitude toward students, and concern for students as individuals. Secondary analyses support this conclusion by elevating to "more satisfied" status those characteristics of a majority of the UWW population; that is, older adults are more satisfied than younger adults, females more satisfied than males, and part-time students more satisfied than full-time students.

Other Majors students are more satisfied than UWW students with two aspects: availability of courses at suitable times and racial harmony at this university. However, the satisfaction levels of both groups are comparatively low for the two aspects. White students are more satisfied than non-white students with financial aid services, with student employment services, with the attitude of non-teaching staff, and with "this college in general." (A summary table is in Appendix D.)

Sixty percent of the students who suggested changes in university attitudes, behaviors, policies, or practices offered their suggestions within a context of predominantly negative comments. The largest single change category contains 28 suggestions for scheduling more courses after 4 p.m. and on weekends; 25 of the 28 came from UWW majors. Smaller categories of suggestions, primarily from Other Majors, concern making university housing more available to or suitable for adult students, making the activity/health fee more relevant or fair to adult students, and creating greater flexibility in procedures involving deadlines and program requirements. Many of the topics of the frustrations expressed in suggestions for change correspond to topics of scaled items having low satisfaction scores.

CHAPTER V

DISCUSSION AND RECOMMENDATIONS

How responsive is the University of Massachusetts at Amherst to adult undergraduates? The question can be approached from a consideration of the present state or as an estimate of potential.

The Present

How responsive is the University to adult undergraduates _at present_? It is _somewhat_ responsive--greatly so in its "special programs," but surprisingly so as judged by _receptivity_ in the campus community to approaches which often meet the needs of older students, and in the _use_ of some effective practices despite small numbers of adult students in most units' clientele.

Such receptivity and usage are not uniform across campus or within personnel groups, however. Study findings support the naming of the "most responsive" components of the institution and the "most satisfied" of its degree-seeking adult undergraduates:

Academic advisors are the group most responsive to adult undergraduates in this university. Staff advisors are more responsive than faculty advisors. Advisors whose load is 1/2 or more adult students are more responsive than advisors with fewer or no adult advisees.

The most responsive of the nine academic (school, college, and faculty) units are the School of Education and the College of Health Sciences.

The most responsive of three clusters of academic units (whose adult enrollment constitutes 5%, 10%, and 15% of their matriculated undergraduate enrollment) is the 15%-adults cluster (Education + Health Sciences).

The most responsive support units were determined by answers to 26 criterion questions selected from a much larger pool. They are Everywoman´s Center and Placement Services (among units whose heads were asked half or more of the questions) and Transfer Affairs, Bilingual Collegiate Program, and Parking Office (among units whose heads were asked fewer than half of the questions).

The most widely used practices effective in serving adults are making academic advising available in departments and divisions and maintaining a network of information-providers about advising and counseling sources on campus.

Local students are more satisfied than national normative-group students with three aspects of college environment: flexibility to design a program of study, availability of advisor, and campus media. Local students are less satisfied than the norm group with seven aspects: attitude of faculty toward students, attitude of non-teaching staff toward students, concern for students as individuals, course availability at suitable times, catalog/admissions publications, student government, and racial harmony.

University Without Walls students are more satisfied than Other Majors students (those enrolled under 10 traditional school, college, and faculty designations) with five aspects of college environment: flexibility to design a program of study, availability of advisor, value of information provided by advisor, faculty attitude toward students, and concern for students as individuals. UWW students are less satisfied than Other Majors with two aspects: availability of courses at suitable times and racial harmony.

Even though there is evidence of some awareness on campus concerning adult students and their characteristics and needs, such remarks as these are often encountered:

"We don´t have any adults!" [reply of support-service secretary told of the nature of information sought from the unit´s head]

"I´m glad we have UWW and continuing ed, so I have some place to send them [adults] when they come in." [departmental secretary]

"UMass has no classes at night, except for a few film and education classes, and courses provided by the Division of Continuing Education . . ." [article in newspaper distributed free in university´s service area] (Kraft, 1986, p. 4)

These anecdotal and peripheral remarks help perpetuate a common perception of the University of Massachusetts at Amherst: that except for some isolated special programs, the undergraduate functions of the institution are oriented to 18-21-year-olds, most of whom reside on or near campus and attend day classes on a full-time basis. The present study, while not designed to devalue or disprove the predominantly youth-oriented character of the university, contributes to a more accurate picture of certain practices in use or potentially usable with older students, that currently small subpopulation which could, and perhaps should, grow.

The Potential

How responsive is the University to adult undergraduates potentially? It is potentially very responsive. Furthermore, fewer massive shifts in policy and procedure are needed than might be expected. What seems to be missing is a widely shared attitude that adult undergraduates are a legitimate and growing segment of the student population across this country and in western Massachusetts.

The requisite change in attitude could come about by identifying, consolidating, and giving a voice to the support (proponence) which is scattered across campus constituencies. Early steps would be proactively recognizing that many practices effective with adult students are also effective with many younger students (and hence are already in place), and bringing into public focus those units where many lesser-known practices are advantageously used. Discussions--informal within single units or in more structured formats open to all--about the needs, goals, and preferences of older students can do much to alter traditional attitudes.

Developing such a posture of openness to a wide age range of students need not fail to consider the demands of a large traditional-age population or the preferences and habits of a highly tenured faculty. Neither must an attitude change necessarily require large expenditures of resources.

Most of this chapter is devoted to specific practical applications and suggestions which draw upon study findings, upon other research and trends, and upon aspects of the university setting. Some links to previous research are traced and suggestions for future research offered.

The findings of the study can be combined in various ways to formulate specific practical applications to the University of Massachusetts at Amherst. In the following section, four applications are described in some detail, drawing on factors in the local setting as well as on study findings. In each instance, additional findings and setting aspects could be brought to bear on the issues. Two more applications are in briefer form, lacking the kind of elaboration that can be provided only by persons more intimately acquainted with current operations, structures, and constraints. The seventh recommendation has evolved from a broad sense of possibilities; it places the university in historical and evolutional contexts.

Recommendations

Recommendation 1

The first recommendation arising from the study is that the University of Massachusetts at Amherst build on demonstrated strengths, potential strengths, and motivation of academic advisors in order to improve the institution´s responsiveness to adult undergraduates.

Study findings suggest that of the three personnel groups surveyed via pencil-and-paper instruments, advisors are the most responsive to adult undergraduates. This outcome means that much of the basic knowledge and start-up initiative essential for taking a productive part in the implementation of the recommendation is present among advisors.

Specific findings supporting the recommendation include these: Topping the list of practices most likely to be maintained in academic advising units are networking practices, for which proponence and usage both stand at 100%. This suggests that a set of linkages, however formally or frequently used, is already in place for new communication and increased collaboration.

Support is high among advisors, at the personal level and at the advising-unit level, for development activities designed to broaden their knowledge of adult learning and adult learners. That actual sponsorship of, or participation in, professional development activities for advisors has been low in the past suggests that a catalyst, perhaps in a form combining new resources, high-level support, and peer encouragement, is needed.

While usage of some practices, particularly those practices relating to the evaluation of noncollegiate, college-level learning, is comparatively low, some degree of usage was reported of all the practices listed in the advisor instrument. This suggests that at least part of the expertise for leading professional development activities is available within the advisor group itself or close at hand in the institution. Such availability of expertise should reduce the amount to be "imported for" (and possibly perceived as "imposed upon") the group. For example, there are experienced users in Transfer Affairs and in University Without Walls of many of the credit-by-examination and credit-by-equivalency practices about which several advisors (and unit heads) expressed unfamiliarity or uncertainty.

Academic advising services garnered high student satisfaction marks. Student satisfaction with advisor availability and with the value of the information provided by advisors ranks second and sixth, respectively, among 20 key environmental aspects. The local student group is significantly more satisfied with advisor availability than is the national norm group. These findings suggest that what advisors know and do in the one-to-one advising context in this university is widely perceived as directly related to learning goals and as positively influencing student decisions.

Responses from unit heads (department chairs and heads, division chairs and directors) show that the practice of making academic advising available is at the top of the list of practices most likely to be maintained in departments and divisions. All unit heads who responded to the survey are proponents of the practice, which is used in 98% of their units.

Also among the department/division practices likely to continue or expand is maintaining a good referral network with other campus advising sources. Unit-head proponence is at 98%, unit usage at 71%.

More than half of unit heads are proponents of sponsoring or participating in a workshop (or other learning experience) for staff members who work with adult students. Nearly all unit heads said, however, that they had not actually sponsored or participated in such a workshop. Various interpretations are possible; perhaps support from outside the unit has not been tendered or perhaps advising resources are spread too thinly across the large traditional-age population.

The recommendation is feasible because of several positive factors in this university setting:

A campus-wide organization of academic advisors is in the formative stages, under the working title Academic Advisors Council. It is seeking to establish an identity for itself and to be recognized officially by the administration. The improvement of academic advising is its primary *raison d'être*, according to its mission statement (*Notes from the First Annual Academic Advisors Conference*, 1986, p. 2).

The Academic Advisors Council has drawn participation from all levels of responsibility for advising, from long-tenured deans to entry-level staff assistants. It thus has the potential for disseminating information and initiating change throughout a large, complex institution in which advising functions are widely dispersed and in which patterns of formal and informal power are not always understood or effectively utilized.

As with most innovations geared to increasing awareness at many levels, Recommendation 1 would require open commitment from the administration as well as from the advisors' council, along with allocation of resources.

Recommendation 2

The second major recommendation formulated for consideration by this institution is that an Office of Adult Learning Services be established as a clearinghouse for information about options available in this university to the 25-and-older undergraduate.

Study findings, factors in the campus climate, and trends in adult higher education suggest that such an office should have these characteristics and responsibilities:

Its chief function should be to enhance, not to supplant, existing advising activities and support services; that is, it should "advise about advisors" and "support support services" by serving as a visible point of contact for enrolled adult students or potential enrollees. Eventually the office could create and maintain a "consumer" file about courses and faculty most responsive to adult interests and needs.

The OALS should not be tied administratively to any one of the so-called "adult units," but should have the capability of giving preliminary and orienting information about any academic unit in which an adult student might have an interest and about any administrative procedure likely to involve the student. The office could perhaps be patterned after or aligned with other specialized units under Academic Support Services, or be placed administratively under the associate provost for undergraduate education.

The director should be trained in adult higher education, particularly in development theory and adult learning theory, and should be knowledgeable about the broader fields of higher education and complex organizations. He or she should hold a terminal degree and thus be eligible for faculty status, in order to gain the credibility and respect essential to visible and successful functioning among the many organizational entities which vie for attention.

An advisory council should be an essential and functional part of the OALS structure. The council should initially include representatives of these groups:

Campus Support Units. Of 16 support-unit heads who were asked about encouraging one or more unit staff to serve on committees or advisory groups which deal with the concerns of adult students, 88% said they were proponents of giving such encouragement, and 75% said they had provided such encouragement. Half of the support-unit heads who were asked about exploring the possibility of creating an office for directing or coordinating services to adult students said they were proponents of such exploration, but only one had actually engaged in such exploration.

Adult Undergraduates. The mean satisfaction level of the 100 students who rated "student voice in college policies" is low, ranking

15th among 20 environmental aspects. No student over 25 held office in student government associations at the time of the survey. Service on an advisory council concerned with adult-student needs could raise the satisfaction levels (concerning involvement in policy-making) both of the student committee members and their peers. Usage of many college services by adult undergraduates is low, suggesting unfamiliarity with, or misperceptions about, applicability and access that could be addressed by this advisory group.

Division of Continuing Education and University Without Walls. Most applicable practices addressed by the study are in use in one or both of these units. Sharing committee service with representatives of support units where similar or complementary practices are used should improve coordination. Proponence of support-unit heads for coordinating some services with DCE and UWW and for informing students in DCE and UWW about campus support services is in the 77 - 100% range. The corresponding usage range is several points lower (64 - 83%).

Teaching Faculty. More than a third of responding faculty reported having worked with UWW students as sponsors or evaluators. Many more are proponents of teaching in other modes accessible to part-time and/or adult students, but few use those modes. Twenty percent said they are proponents of and had participated in local organized discussions about how college students learn, about adult students' particular needs and preferences, or about assessing student outcomes. Fifty percent identified themselves as proponents of such discussions who had not so far engaged in them. A few faculty identified themselves by name on survey instruments, outlined their interests in the adult-student population, and expressed interest in further discussion.

Campus-based Units which Serve Adult Students on Only a Non-credit Basis. Input from such sources, such as the Staff Training and Development Unit and the Cooperative Extension Service, would acknowledge the multiple roles of many adult students as well as the extensive expertise and resource materials in these specialized units.

At later stages in the evolution of the advisory council, representation from top administrative levels should be sought, along with participation from Five-College members and area transfer/feeder institutions.

Numerous possible functions of the OALS office could be identified and prioritized from the study findings, other research findings, and council deliberations. The following list is not an exhaustive one, nor are the items in priority order:

a. Coordination of the professional development activities suggested for advisors under Recommendation 1, and similar activities for other campus groups, such as undergraduate teaching faculty.

b. Publication of a newsletter to adult students (or, more widely, to part-time students), using the best features of previous publications aimed at commuters. A portion of the part-timers' activity fee (whose very existence and perceived use are low on adult students' satisfaction scales) could be diverted to this effort if such use were explained to fee-payers accordingly.

c. Attention to "ageism" in the context and existing delivery modes of the campus-wide effort to recognize and study diversity.

d. Provision of a peer assistance program. This could be staffed by adult work-study students. Only six academic-unit heads reported both proponence and usage of such programs (for students in general);

29 others said they are proponents but that their units do not have such programs.

e. Carrying out of needs assessments among the adult-student population. While needs assessments were identified as high priorities and as fairly widely used (100% proponence and 75% usage among support-unit heads surveyed), the application of some existing assessments to adult-student concerns is unclear. Cost-effectiveness would be an attribute of needs assessments undertaken collaboratively by the proposed OALS and other data-gathering services such as SAREO and the Office of Institutional Research and Planning.

f. Installation of computer-assisted advising capability oriented to adult users, which would be cost-prohibitive if provided in all advising units. Half of the academic advisors surveyed are proponents of using adult-oriented advising software such as SIGI and DISCOVER, but only three reported having used it. At minimum, interested advisors could acquaint themselves with the software in the OALS office in order to promote its use among students.

g. Provision of a research site and database for graduate students in the Adult and Higher Education Program. Viable issues are numerous, and could include the local setting's relationship to the forthcoming conclusions of a national study about increasing participation of adult students in higher education, especially about the "mainstreaming" of that population (Aslanian and Brickell, How Americans in Transition Study for College Credit, in press) and the nature of those parts of the adult population which remain largely unserved. The suggestions elsewhere in this chapter for further research touch only a few of the other areas for possible graduate-student projects.

h. A pilot program for older male students, patterned after applicable features of Everywoman's Center, which was identified in the study as highly responsive to female adult students in a number of support areas. As the proportion of females in higher education passes the 50% mark and as the rate of divorce and family breakup continues to escalate, a case could be made for at least a startup effort to concentrate assistance for adult male undergraduates in a visible place.

i. A location where adults' prior learning experiences, particularly those acquired outside collegiate settings, could be assessed for possible credit award or other applications to university degree programs. While centralizing assessment resources and expertise in the OALS would have advantages for publicizing the process as well as for aiding students, locating them in the proposed support unit should not be done in such a way as to relieve departments and individual faculty of participation in the collaborative activities essential for evaluation of prior learning.

Recommendation 3

Third among the actions suggested by study findings is that a task force investigate the possibility of expanding the number and nature of academic-department courses offered after 4 p.m.

A popular conception that after-regular-hours scheduling at this university is exceedingly sparse is represented by the newspaper excerpt cited earlier in this chapter. A related study finding is that satisfaction of adult undergraduates with "availability of the courses you want at times you can take them" is lowest among 20 environmental aspects. Other Majors students are more satisfied than UWW students with course-time availability, but if Other Majors' satisfaction levels for the 20 environmental aspects were ranked in a separate list, course-time availability would still be very low on the list--in 18th place, tied with satisfaction concerning racial harmony. Further, the commonly cited 4 p.m. dividing line may not be the key or only issue; findings indicate that the satisfaction level of full-time students with course-time availability is not significantly different from the satisfaction level of part-time students. An additional impetus for this recommendation is that more suggestions for expanding course scheduling after 4 p.m. or on weekends were received from students than for any other type of change.

Other study findings fuel speculation that the necessary ingredients for alleviation are probably available here but are unfocused and undefined: Almost half of responding unit heads indicated not only that they are proponents of scheduling some sections of courses in evenings or on weekends but also that their units do such scheduling. Nearly another third are proponents in units which do not do such scheduling. These findings suggest fairly wide precedent for programming outside daytime hours, along with some existing decision-making mechanisms and a fair amount of receptivity, despite some unnamed constraints.

Fully one third of responding faculty said not only that they are proponents of "teaching a regularly departmental course outside traditional weekday, daytime periods" but also that they do such teaching. Nearly half of the faculty sample are proponents of after-hours teaching but do not engage in it. If these percentages were generalized to the pool of 1,142 "eligibles" from which the sample was drawn, nearly 400 faculty could be characterized as "practicing what they propone" and another 550 as "proponing but not practicing," leaving only 145 who neither teach after hours nor favor doing so. Such a lavish generalization is far too optimistic, but further inquiry by a special task force acquainted with the forces impinging on the situation could whittle the potential to valid size, perhaps over a broader time slice than was carved out for the study.

Arranging advising sessions with faculty after 4 p.m. is commonly perceived as difficult. Yet more than half of the faculty respondents said they are available for such appointments. When three facets of after-hours advising are compared, the percentage of faculty reporting that they are available is statistically greater than both the percentage of academic units and the percentage of advising units who make such late-hours advising available.

An important but sometimes discounted factor in course-time availability, particularly for part-time students, is frequency of trips to campus during daylight hours. Nearly 60% of unit heads not only said that they are proponents of "scheduling longer, less frequent class meetings for the convenience of students" but also reported that their units do so. Another 20% are proponents in units which do not use such scheduling.

Underlying such essentials as how many courses are available in the evening/weekend format are the larger issues of whether part-timers can complete requirements for at least some programs in after-regular-hours formats, and whether they can complete the last 60 hours [at whatever hour taken] within the 10-semester limit set by university policy. More than half of unit heads said they are proponents of after-hours completion by part-timers, but only 13 (27%) said their units make it possible.

Recommendation 4

Fourth on the list of recommendations is that the soundness of the time limit on completion of program requirements by part-time students be questioned by the task force addressing Recommendation 3. Such an assessment should be made within a larger examination of the implementation status of recommendations made by the 1983 Task Force on Part-Time Students (Task Force on Part Time Students: Recommendations and Final Report, 1983; see also Special Report of the Academic Matters Council Concerning Part-time Students, 1982).

A general trend in higher education is that the average time of completion for full-time students is inching closer to ten semesters. This immediately suggests that completion of a final 60 hours by part-timers may be becoming correspondingly more difficult.

About half of unit heads are proponents of completion by part-timers within the 10-semester limit, but such completion is possible in only 10 units (21%). Ten other unit heads left the blank and several indicated uncertainty; this suggests that the time constraints on part-time students are not clearly defined or uniformly applied and/or that the instrument item is unclear. [In retrospect, the instrument item, "Making it possible for some part-time students to accomplish requirements for some programs within the usual 10-semester limit," assumes that the writer and the respondents have correctly inferred the final 60 hours qualifier, when it should have been a part of the phrase.] Nevertheless, there are enough indications that another task-force inquiry is in order, including signs of confusion among part-time students seeking interpretation of current enrollment categories (described in Undergraduate Right and Responsibilities, 1987, pp. 18-

19) and an unfinished administrative inquiry into "ways to optimize older and nontraditional student enrollments" called for by the most recent marketing plan for the university (Benedict, 1984, p. 23).

Perhaps wider, consistent availability of clear information to enrolled and potential students about part-time status would be the only action needed. This possibility echoes one of the Academic Matters Council's concerns in 1982: that the availability of a "viable alternative . . . has not been fully advertised to students" (*Special Report of the Academic Matters Council Concerning Part-time Students*, 1982, p. 1). At the same time, however, unit heads should reexamine the structures of their own programs to ascertain the feasibility and desirability of rapid completion by those in part-time enrollment status, a category into which many adult undergraduates fall.

Recommendation 5

The fifth and sixth recommendations arising from the study concern two other modes of study particularly applicable to part-time students: independent study courses and continuing education courses. Study findings show that independent study is available on a reasonably broad basis. They also reveal some interesting differences among respondent groups: (1) The proponence of faculty for *supervising* an independent study course is significantly greater than the proponence of unit heads for *offering* courses in the independent study mode. (2) Advisors *advise* students about the possibility of independent study and faculty *teach* independent study courses at significantly greater rates than units *make such study available*.

These outcomes and some setting factors support a recommendation that the pattern of independent study credit be traced to see how extensively part-time students are using it (in proportion to their numbers in the undergraduate population), to compare their completion rates to those of full-time students, and to identify the features of the mode which are responsible for unit heads' lower proponence. (Now that the course numbering system enables ready identification of faculty sponsors, systematic inquiry should be feasible.)

Although earning credit by independent study is often considered a handy "fallback" option by many students, the mode is not appropriate for all who seek it, as it requires more self-discipline and more ability to negotiate and execute a work plan than do many traditional classroom courses. Many adult students are on campus infrequently, perhaps hampering the scheduling of appointments with the supervising faculty member. Some adult students long out of school lack the skills and/or confidence to pursue solo study. Thus, at minimum, in order to gear this alternative delivery mode towards higher success rates, a set of guidelines should be prepared for faculty to use in determining student readiness to engage in independent study and in choosing the appropriate amount of structure and a suitable pattern of evaluation.

Recommendation 6

Issues relating to the balancing of costs for students moving from Division of Continuing Education status to degree-seeking status in other university units emerged during the study. Some of these issues can be included under Recommendations 3 and 4 because they were addressed by the 1983 task force and could thus be reexamined by a followup group. But other relationships with DCE merit a separate reommendation: In light of some trends across the country, a systematic effort should be undertaken to improve the articulation of the Division of Continuing Education with other university groups and units. How the topic might be addressed and who should address it are the domain of those better acquainted with the complexities of the situation, but these study findings and setting factors seem pertinent:

Faculty proponence is high for teaching departmental courses through DCE, either as initiated by the faculty member or his/her unit (88% proponence) or in response to constituent demand as identified by DCE (81% proponence). But reports of actually teaching in either of those modes are few (24% and 9% of the faculty sample, respectively). If the assumption is made that adult students would constitute a visible proportion of evening courses taught by those supportive faculty, then two additional study findings are applicable: Only 27% of faculty respondents said they mentioned work with adult students in their annual reports, and only 4% reported receiving recognition for such effort through the reward system. The setting factors that DCE teaching does not contribute to faculty "load" and that the legislature places restraints on funding after-hours courses work against improving articulation of "day" expertise with "evening" opportunity.

Smaller in scope but important to those students involved is the need to improve articulation of DCE's Bachelor of General Studies program with other baccalaureate programs. At minimum, BGS students should be elevated from the "space-available" registration category to the eligibility status accorded other matriculated degree-seekers.

The university's planned unification of registration functions ("Undergraduate Registrar, Scheduling Office Transferred to Academic

Affairs," 1988, p. 2) is a step towards streamlined administrative capability. Some colleges examined in the College Board's "mainstreaming" study (Aslanian, 1986, p. 7) have taken this step and others as they begin to adjust to "changes in student mix." Dismantling divisions of adult and continuing education and giving their functions to regular administrative units has been the approach of some, while others are trying an "extended day" approach such as that advocated by Massachusetts' chancellor of higher education (Jenifer, 1986). Extreme restructuring undertaken without careful study, however, may obliterate many of the effective and specialized approaches developed over the years in campus units which have successfully served, often on a very personalized basis, re-entry adults and part-time students.

Recommendation 7

A final recommendation places the University of Massachusetts at Amherst in broad spatial and temporal contexts. In recognition of the Congressional act which a century ago created additional land-grant colleges to extend access to higher education to an underserved population (The Statutes at Large . . . , 1891), a conference should be scheduled on this campus within the next two years on this general topic: "The Role of Rural Land-Grant Universities in Meeting the Needs of Adult Learners." Presentations should be sought from both older and newer land-grant institutions which have interpreted their historic missions in productive but diverging ways. Other features should include participation by campus units which serve adults, by area cooperating and collaborating institutions, by specialists in adult higher education, and by adult students themselves.

Suggestions for Further Research

The possibilities for additional research which are listed below are essentially reactions to three kinds of stimuli: ideas and populations set aside when limits to the study were drawn, the realization during data gathering and analysis that more outcomes could be identified and described than were feasible even for a major study, and the energizing process of seeing interesting connections between one´s own research interests and others´. Each of the suggestions below represents a blend of those avenues of inspiration.

The "Adult Development" of Faculty

Nearly half of the faculty sample in the present study completed an optional set of questions about developmental approaches to course design and revision. Challenging students to greater cognitive development was acknowledged by the majority of this group. Challenging ego/personality or moral/ ethical positions is far less prevalent and, according to a few parenthetical comments, less well understood.

What is the relationship of (a) faculty interest in developmental approaches to course design and delivery to (b) their own adult-developmental stages? What effect on course design and delivery might result from faculty participation in a workshop designed to (a) help them discover their own positions in life cycles-transitions-stages-phases models or to (b) acquaint them with developmental approaches to such diverse subjects as English, history, anthropology, and engineering? Materials are in existence to support either kind of activity. An example for the former is Krupp´s workbook-style _Adult Development: Implications for Staff Development_ (1981). Essays on the latter constitute much of The Modern American College (Chickering, 1981, pp. 328-537).

Shades and Hues of Proponence

For the advantage of gathering quantifiable proponence data so that large groups of university personnel could be characterized, the opportunity to sample systematically the nature and nuance of individual proponence was sacrificed in the study design. Yet volunteer comments on instruments hint that the range of positive attitudes represented by "Yes" responses stretches from what one respondent defined as "mild receptivity" to the verve of the person who wrote, "We need a bunch of Grey Panthers, Maggie Kuhn and some vociferous adults aged 25-40, to strike NOISILY in this place."

What are the kinds and strengths of proponence for adult students in this university? Could a "proponence scale" be devised to describe and compare them? What relationship does proponence have to respondents' gender (beyond the intriguing but relatively few findings which emerged from the present study) and to age, which was not one of the identifying characteristics in the study?

Students Outside the Barriers

The "barriers to participation" model (Cross, 1981, pp. 97-108) was adapted to create an "obstacles to satisfaction" model for this study, in order to content-analyze the institutional changes suggested by currently enrolled, degree-seeking adult undergraduates. However, the barriers concept in its original form is pertinent to the population of adult undergraduates who had dropped out of the university before the sample was drawn and were thus excluded from the study. For a more valid picture of the "fit" of this institution to the needs of adult undergraduates, the dropout population should be surveyed about satisfaction levels and about perceived barriers in institutional attitudes, behaviors, practices, and policies.

A population even more difficult to reach comprises the once-prospective adult students who approached the institution but either did not formally apply or did not survive the entry process, for a variety of situational, institutional, or dispositional reasons. Systematic inquiry into this population may be impossible. Perhaps inviting volunteer responses via a survey form in area newspapers, while weak as a research design, would be a productive pilot study.

Local vs. National-Norm Students

At least three areas of significant difference in satisfaction between the local adult-student group and the national normative group would make interesting topics for further study. The three were identified when findings about key environmental aspects were enumerated, but were not discussed in detail. The local group´s mean satisfaction score is significantly higher than the norm group´s concerning college media. The norm group has the significantly higher score in satisfaction with college catalog/admissions publications and with student government.

One worthwhile investigation would be to compare traditional-age-student satisfaction to adult-student satisfaction with these aspects of this university. Viable larger projects would be the replication of the present study´s entire adult-student component, either with traditional-age students on this campus or with an adult-student sample representing Northeastern peer institutions of the University of Massachusetts at Amherst.

Proponents as "Linkage Agents"

The adoption or expansion of practices effective with adult students is an underlying goal of most of the recommendations offered earlier in this chapter. Diffusion of knowledge or innovation need not be left to chance. One of this institution's researchers whose area of expertise is the purposeful influencing of change refers to change agents as "linkage agents." They are those persons who

> routinely sift through mounds of new practices, products, and ideas, in order to determine which ones best meet the needs of targeted audiences. Their preferences can determine the effective life-span of innovations (Wolf, 1984, p. 359).

Are the "proponent/users" of the present study (those who responded, "Yes, I am a proponent of this practice, and yes, this is my practice") effective linkage agents? In the configuration of variables and processes underlying the Wolf-Welsh Linkage Methodology (see diagram in Wolf, p. 364), could "proponent/non-users" ("Yes, I am a proponent of this practice, but no, it is not my practice") be characterized as the "targeted audience or adopting units"? Which practices effective in serving adults might be selected as experimental innovations?

(For confidentiality reasons, the individual responses gathered via pencil-and-paper survey in the present study are not available to another investigator, but similar data could be gathered via an instrument tailored to the diffusion of a particular innovation and patterned after the Guide-based instruments.)

Measuring "Climate"

The scheme of combining and weighting proponence and usage responses in order to establish a climate for maintenance and adoption of practices holds considerable promise for future experimentation. The formula, developed only to a rudimentary stage in this study, could be made more powerful statistically, not only to balance the four unambiguous combinations of proponence and usage (YY, YN, NY, and NN), but also to make use of information in partial responses (*e. g.*, proponence known, usage unknown or ambiguous; usage known, proponence unknown or inferred). Weighted climate scores could be determined for respondents or groups of respondents as well as for practices. Summing individual YY, YN, NY, and NN scores could characterize relative responsiveness across various aggregations such as school, college, and faculty affiliation.

Suggestions for future research involving *Postsecondary Education Institutions and the Adult Learner: A Self-Study Assessment and Planning Guide* are offered in Chapter VI.

Connections to the Literature

The design and rationale of the study are based upon principles and procedures extracted from the literature concerning adult development, responses of higher education institutions, institutional self-assessment, and survey research methodology. Many of the outcomes of the study add to or strengthen that literature. Only a few examples are cited below.

Key among the connections and influences of the study is that its findings enhance the construct validity of *Postsecondary Education*

Institutions: A Self-Study Assessment and Planning Guide. That is, the findings in several instances successfully discriminate among certain units and groups which serve greater and lesser proportions of adult students. Using the guidance of earlier users to add needed topics to the *Guide* and seeking student perceptions of institutional response increased the potential usefulness of the results when they are returned to the participants and disseminated to other decision-makers. That the study targeted areas of unfamiliarity and uncertainty about certain practices fortifies the conclusion of some observers that some institutional unresponsiveness to adults can be attributed to ignorance about the needs of that population and/or the nature of practices effective in meeting those needs.

Outcomes of the student satisfaction component corroborate conclusions of Cross (1981) and others that the biggest barriers or obstacles adult students encounter are in fitting their college experiences into the constraints imposed by their other responsibilities. Study results also point up the need to seek input from former or once-prospective students for whom the barriers have been insurmountable.

The study's high response and instrument-completion rates can be linked to the incorporation of principles of useful institutional self-study and the characteristics of good survey research. These include the expression of commitment from high in the administration; incorporation of local "team" expertise; demonstration of topic salience to prospective participants; respect for diverse opinion; attention to confidentiality issues; fit of the survey instruments to this institution; and adherence to systematic planning, professionalism, and followup procedures.

The study can be viewed as a link between earlier research and future investigations in two additional ways. First, there are many possibilities for speculation in the findings, in addition to those singled out for priority discussion, which others could develop further and link to the same foundational sources. Second, the suggestions for future research in this chapter bring in possible connections to the work of others which did not figure in the present planning or design.

CHAPTER VI

CRITIQUE OF THE *GUIDE* AND ITS ADAPTATIONS

This final chapter focuses again on the primary materials used in an institution-wide self-study of the responsiveness at the University of Massachusetts at Amherst to adult undergraduates. The chapter has these components: (1) a brief critique of the publication which provided content and process guidance for the project (*Postsecondary Education Institutions and the Adult Learner: A Self-Study Assessment and Planning Guide*); (2) some insights arising from adaptations made to the *Guide* expressly for this study; (3) a personal evaluation of the study's information-gathering capability; and (4) suggestions for further experimentation with the *Guide*.

The As-Published Guide

[The comments made in this section derived from an exercise which was undertaken in addition to the initial examination and adaptation of the *Guide* and the construction and the use of instruments based on it. This supplementary exercise consisted of long interviews, based on the as-published sequence and content of the *Guide*, with staff representatives from the Division of Continuing Education and University Without Walls. Details of the exercise are given in Appendix A.]

The *Guide* is the flexible, theoretically grounded tool that its developers claim it to be. It covers a broad range of practices often effective with adult students, and is arranged in logical groupings corresponding to the division of functions in many postsecondary institutions. It encourages users to add additional questions and to eliminate questions inappropriate for their particular institutions. The looseleaf format facilitates putting categories in local priority order and assigning tasks to a study team. The published collection of user reports (Warren, 1986a) and the supplementary manual (Warren, 1986b) are valuable adjuncts, offering further insights into the process along with expressions of the realities in actual "field" experiences.

The Guide's flexibility can be variously interpreted, however. User reports contain both criticisms of the Guide format as cumbersome and praise for its adaptability and for its complementarity to local evaluative materials. Perhaps those who found it unwieldy attempted too few departures from the printed pages or failed to anticipate the abundance of data which can be generated by using the entire publication.

This researcher's reflection over the present study has led to the conclusion that the Guide was indeed the appropriate tool to adapt for the study and to the local setting, even though major departures from its as-published form were deemed necessary. One criticism of general format and two concerning particular sections merit special attention below, primarily because some of the elected changes were made partly to avoid some awkward aspects.

As shown in the sample Guide pages on page 54, instructions suggest that only one choice be made across an entire group of questions concerning the "current status of this descriptor policy at your unit." This single judgment becomes awkward when the practices in the category, even though they may be similar in important ways, differ greatly in use in an institution. To cite the local example for the practices shown on the sample page, correspondence study is almost nonexistent here and media-delivered formats are rare, but independent study is widely used and internships and individualized learning contracts are fairly common. How, then, would one choose, for the entire category, among the five "consideration" options at the bottom of the page? Eliminating this global-consideration part of the exercise and installing a dual "proponence" and "usage" format as a more precise measure was the modification derived for this study. An alternate approach would be to build a matrix, perhaps a conventional decision-making matrix, placing the five "consideration" options on one axis and the category´s diagnostic questions on the other. Such a graphic device could facilitate enumerating, for example, how many practices in the Guide are in active consideration across categories. Perhaps, too, the performance rating exercise on the page opposite each set of questions, if employed as appropriate to the norms of the institution, would be more easily carried out with the visual support of such a matrix.

For all questions in the Guide except five items under the heading Criteria for Admissions, an affirmative answer means that a practice effective with adult students is in place. In contrast, a "Yes" response to these particular five questions indicates the opposite--adherence to admissions standards and means which are commonly used with 18-22-year olds but which are less pertinent for persons whose high-school years may be far in the past. The items are these:

(1) Are adult learners evaluated using the same standards as for traditional students in the following criterion areas:

(a) High school grade point average?

_____YES _____NO _____NOT APPLICABLE

(b) Recommendations given by high school principals and teachers?

_____YES _____NO _____NOT APPLICABLE

(c) Scholastic Aptitude Test (SAT) scores?

_____YES _____NO _____NOT APPLICABLE

(d) American College Testing (ACT) scores?

_____YES _____NO _____NOT APPLICABLE

(e) Local tests or standardized tests not mentioned above [?]

_____YES _____NO _____NOT APPLICABLE

(p. 22)

Such a reversal in the meaning of the answers perhaps poses no problems for an interview setting in which the interviewer can make explanations for the shift and from which only narrative data will be extracted (as was the present case). However, departing from an otherwise consistent response rationale constitutes a potential source of computational error if any sort of checklist or quantifiable summary of affirmative responses is later employed.

Asking, in a diagnostic question under the heading Adult Learners Presently Served (p. 6), whether each of 32 separate items of information about advisees is collected by the unit presents a formidable task to the respondent. In a one-to-one interview, such a round of questioning may be reasonably feasible, but in a pencil-and-paper instrument whose length may be a primary factor in a recipient´s decision to respond, such a list could discourage completion of the instrument.

Grouping the 32 into eight larger categories was the solution devised for the present study.

Finally, more emphasis should be placed in Guide introductory materials on the value of using the publication in settings other than formal self-studies. Guide contents could generate a series of provocative topics for discussion in staff meetings of units which presently serve adults or in units contemplating changes towards greater responsiveness to adults.

Adapting the Guide

In the adaptation of the Guide to the present study, three pencil-and-paper instruments were developed and a repertoire of interview questions constructed. The Guide lent itself well to both investigative formats. Some points of particular emphasis emerged in the process, and may be useful to others contemplating similar undertakings:

--Any items added by researchers should not only be thoroughly grounded in the literature, but should also be subjected to more validity and reliability testing than may be given to the established elements in the publication. (An additional round of pilot-testing would be one method.) In the present case, only three items were deleted from first-draft instruments after pilot testing, but two of the three had been added by the researcher.

--An investigator should understand that in substituting mailed instruments for personal contacts, an amount of certainty in obtaining information can be lost. If, for example, only one person is the source of information about a unique or key unit (*i. e.*, is a "sample of one"), perhaps that person should be interviewed rather than sent a questionnaire. In the present study, only part of the valued information requested via instruments mailed to the head of an "adult" unit was returned by the participant.

--A study designer should thoroughly anticipate that a wealth of information may be accumulated as the outcome of a series of interviews. Such abundant information, particularly if it deals with many very specialized practices (such as those pertaining to housing or financial aid), may not lend itself as readily to quantifying and other aggregating and descriptive techniques as does questionnaire data. In the present study, much useful and often detailed information was gathered from 23 support-services heads. In order to present a manageable and coherent number of findings in this report, only those 26 practices common to six or more support units and to DCE and UWW were subjected to detailed analysis. (The remaining data will be preserved for possible treatment in supplementary reports. It also has potential value for individual contacts designed to expand the researcher's knowledge of support services and interviewees' understanding of the intent and outcomes of the study.)

--There is no substitute for consultation prior to and during the selection and modification of questions. This is particularly true if the researcher is working without a study team or if functions overlap among support services on a campus.

Evaluating the Study

Many of the positive attributes of the study were stated or implied in Chapters IV and V. They include high response and completion rates; numerous patterns of proponence and usage discernible by visual inspection and statistical analysis; the blending of study findings with trends in higher education and local setting factors to support conclusions and recommendations; and the linking of present outcomes to concepts in the literature and to possibilities for future research.

A personal kind of assessment was also sought--some indication of how successful the study had been in accumulating useful information for the local setting in the various Guide categories. For this private exercise, the performance ratings (which were not used in the study itself to evaluate the university) were put to use, along with the 33 descriptor statements (principles of good practice) which were implicit in the study design but not cited verbatim in instruments.

By means of a rating checklist, the researcher made a highly subjective evaluation of the study's perceived capabilities under each of the 33 descriptor statements. The question guiding the self-rating of the project was, How successful was this institutional self-study in enabling a lone investigator to gather information which makes possible broad characterizations of groups and services and supports preliminary conclusions and recommendations?

For more than 80% of the descriptors, the study was judged to be Adequate or higher for its information-generating capability. The remaining 20% fared as follows: For one descriptor, the self-rating was a qualified Adequate; for three, Less than Adequate; and for two outside the chosen scope of the study, Poor.

A qualified Adequate was given the study under this descriptor: "All basic campus campus services are evaluated to determine their value, or potential value, to adult learners" (Postsecondary Education Institutions and the Adult Learner: A Self-Study Assessment and Planning Guide, 1984, p. 82). The Guide covers services in this category with a "miscellanous" group of questions. Seven were selected for the study, relating to information-gathering and dissemination, child care, and student employment. Two were not selected, relating to food services and personal safety programs. Thus, while information about the seven is Adequate or higher, commenting on the overall descriptor statement would have little specific meaning.

The three Less than Adequate ratings are outgrowths of recognized inadequacies in three adapted survey questions. In the first topic area, this descriptor heads the diagnostic questions: "To serve adult learners effectively, it is desirable to develop a definition of the adult learner group or groups to be served. . ." (p. 4). Survey efforts had mixed outcomes. Adult learner "definition" questions were asked, with good result, of the heads of the Division of Continuing Education and University Without Walls. But the first few attempts at including them in telephone interviews of support-service heads were awkward, suggesting that asking for definitions of adult learners in an institution which serves few degree-seeking adult undergraduates is inappropriate because too much explanation is required. Thus this area of inquiry was eliminated or deemphasized in remaining interviews.

Concerning the descriptor which reads, "Institution-controlled programs of student financial aid are available to all adult learners on a basis that reflects their levels of need" (p. 26), an emphasis on institution-controlled financial-aid programs was not brought strongly enough into interview questions. Thus most of the financial-aid director's responses concern federal and state aid, which are largely outside the control of the institution.

Two important concepts are combined in the descriptor which reads,

> Degree requirements for programs in which significant numbers of adults are expected to enroll are academically sound, yet flexible enough to take into account restrictions posed by the life situations of adult learners (p. 42).

The Guide's questions in this category (and thus the adapted versions) cover the flexibility aspect of degree requirements but do not address their academic soundness. Because all degree programs, not just those "in which significant numbers of adults are expected to enroll," were targeted by the survey of unit heads, the need to add items about academic soundness was overlooked. Thus study data are Adequate for the former aspect but Poor for the latter.

The two areas excluded from the study rated, predictably, a Poor for the information generated under those headings. The relevant descriptors are:

> Quality certificate and other credit and noncredit continuing education programs are available for adult learners who do not have a degree objective in pursuing a particular course of study (p. 50).
>
> In addition to its mission statement, the unit has a statement of objectives regarding programs and services for adult learners (p. 106).

Information gathered about credit programs in which degree seekers are enrolled was rated Adequate to Very Good, while non-credit programs were outside the chosen scope of the study. The area of "objectives" was eliminated in order to focus more strongly on "mission." Two open-ended "mission" questions for unit heads and faculty and one "purpose" question for advisors elicited much interesting material for content analysis.

Further Use of the Guide

Two particularly intriguing possibilities for further experimentation with Guide-based instruments came to light during the course of the present study:

If separate groups of personnel in a range of academic or service units are surveyed via instruments tailored to each group, the investigator may wish to determine proponence and usage at the unit level across all groups of personnel. In the present case, an interesting comparison would have been to fold unit-head, faculty, and advisor proponence into school, college, and faculty categories in order to compare higher-level aggregations of support. An even more challenging exercise would be to use the "climate" formula among personnel units to determine readiness to respond, in addition to deriving climate scores for the practices. Such an investigation would involve applying the formula to the number of YY, YN, NY, and NN responses given by each respondent and then aggregating those into academic or other affiliational groups. In the present study, the varying lengths of instruments worked against an exploratory application of this concept, but in future studies, instruments of similar length could be devised.

The acceptable number of "matches" and large number of "almost matches" of Guide items to Student Opinion Survey items lead, predictably, to thoughts about an adult-student version of parts of the Guide. Such an instrument should be more than just a satisfaction scale, however. There are indications in the present study that many adult students may not be aware of some of the options open to them and/or that flexibility approached collaboratively by student and advisor or faculty member can be an asset. Thus an "awareness" measure, perhaps imitative of the usage-of-college-services measure in the SOS, would be a useful component of any companion instrument designed to balance student perceptions against the institutional perceptions elicited by the present *Guide*.

Concluding Thoughts

An institutional self-study of a large, complex university on any topic must necessarily be a complex effort reaching across many campus units to mesh findings into an assimilable form. While extensive adaptation of *Postsecondary Education Institutions and the Adult Learner: A Self-Study Assessment and Planning Guide* was undertaken in order to take advantage of others' experiences and to fit the tool to this institution and to a particular way of implementation, the solid, underlying rationale and intent of the *Guide* remained unchanged. Thus the original *Guide* might now be viewed as having even greater possibilities, and the adaptation should be further modifiable for good results in other locations. The combination of the *Student Opinion Survey* with the *Guide* was a suitable one which may suggest other pairings of existing instruments. The study produced information which can be used to examine whole groups or groups subdivided by selected characteristics, and about smaller units which can stand alone or be grouped together by similar functions. The study generated quantitative and non-quantitative data which could be used immediately to set priorities for discussion which might lead to changes in policy and practice. Other findings may merely point up some areas or topics needing the more intensive scrutiny which study teams representing a cross section of the institution can undertake.

APPENDIX A

Design of Instruments

Design of Instruments

Instruments for Part I of the study were designed in accordance with findings from survey research concerning enhancement of response rate. Important sources included Erdos (1970); Linsky (1975); Heberlein and Baumgartner (1978); Childers, Pride, and Ferrell (1980); Borg and Gall (1983); Altschuld and Lower (1984); Baumgartner and Heberlein (1984); Lockhart (1984); and Sudman and Bradburn (1984).

General Appearance: Instrument originals were prepared on a word processor in a clear, 12-point typeface. Space was inserted between paragraphs of instruction and between content items to avoid the appearance of masses of words. Distribution copies of the unit-head, faculty, and advisor instruments were produced by a high-quality photocopy process on 20-lb. stock, ivory in color. The instrument title consisted of simply a Roman numeral and the name of the target group; for example, II. FACULTY. The investigator's name and office address were printed at the bottom of the last page.

Instruction Block: The instruction block for the unit-head, faculty, and advisor instruments occupied about two-thirds of the first page. These topics were addressed: purpose and brief description of study; assurance that no value judgment of practices suitable for traditional-age students was implied; definition of "adult student"; directions for responding to the two-question format (these varied slightly among the three instruments); assurance of confidentality; invitation to make additional comments; and a "thank you."

Item Format: As described in the Methodology chapter, all items selected for use in Part I and II instruments were rewritten as participial phrases so that a two-question response format could be appended. An example is "Advising students at off-campus locations." Short explanatory paragraphs were inserted between some category headings and the first item included in the category.

Response Format: A response format was sought which featured ease of response yet had the capability of eliciting two kinds of information: (a) an indication of receptivity to, or support of, a practice (ideally, at a level of judgment above current exigencies in the respondent's situation); and (b) an indication of whether the practice is part of the respondent's customary or expected activity.

The first-tried response format was inspired by a standardized instrument, *Institutional Goals Inventory* (Peterson and Uhl, 1977, p. 5), whose "importance" scale uses derivatives of the concepts "Is this a goal?"and "Should this be a goal?" The version inserted in this study's draft instruments sent to pilot readers read,

	IS this your practice?	SHOULD this be your practice?
1. [item]	___YES ___NO	___YES ___NO

Some concern attended the choice of "should" -- concern that the word might carry overtones of obligation, guilt, or investigator bias stronger than the intended meaning of support or advocacy, particularly where practices of an individual rather than a group were being probed. This concern was amplified to the point of action when some pilot readers suggested that a more suitable word might be found.

The alternatives "Do you support this practice?" and "Are you an advocate of this practice?" were also rejected, the former as too ambiguous, the latter as having acquired in recent years a more aggressive, or at least a more active, connotation than was desired. [In one dictionary interpretation, "´Advocate´ implies verbal support, usually in the sense of pleading or arguing" (The American Heritage Dictionary, 1982, p. 1222).]

The form finally chosen, "Are you a proponent of this practice?", was defined in the Methodology chapter.

For Part II of the study, a repertoire of items for telephone interview of heads of support units and supplementary items to send to the heads of the Division of Continuing Education and University Without Walls was selected from the pool of items based on the Postsecondary Education Institutions and the Adult Learner: A Self-Study Assessment and Planning Guide and local modifications and additions. Pages in the repertoire were typed in the same format as the pencil-and-paper instruments, in the event an interviewee requested a copy of his/her responses or expressed a preference for a written equivalent of the interview. The general order of categories selected from the Guide was retained, although some subheadings were renamed and/or further subdivided. About one-fourth of the 210 items in the resulting repertoire had also been selected for one or two of the Part I pencil-and-paper instruments, primarily the advisor instrument.

Category headings, subheadings, and the numbers of items in the support-unit repertoire are

Set A: Practices Pertaining to Data Collection and Analysis
    Definitions (3)
    Adult students presently served (11)
    Demographic information (3)
    Needs assessment (4)

Set B: Outreach Practices
    Recruiting adult students (7)
    Meetings for potential students (6)

Set C: Admissions Practices
      Means (8)
      Criteria (7)
    Orientation Practices (8)
    Advising
      Practices pertaining to availability of advising (7)
      Credit evaluation practices (15)

  Other advisor practices (5)
  Student Financial Aid Practices (6)

Set E: Practices Pertaining to Continuing Education Programs (10)

Set F: Library Practices (14)
  Practices of Learning Resource Centers Administered by University Units Other than the Library (10)
  Practices Pertaining to Academic Support Services
    Academic performance record-keeping (3)
    Other support practices (2)
    Remedial and accelerated programs (4)

Set G: Registrar Practices (3)
  Practices of Career Counseling/Career Development Services (8)
  Practices of Personal Counseling and Mental Health Services (6)
  Practices Pertaining to Other Facilities and Services (5)
  Practices of Placement Services (7)
  Practices of Child Care Services (5)
  Practices of Housing Services (6)
  Practices of Parking and Transportation Services (4)

Set I: Practices Pertaining to Student Government (4)
  Practices Pertaining to Extracurricular Activities (5)

Set J: Practices Pertaining to Administrative Structure
    Organization (8)
    Finance (2)

Set K: Practices Pertaining to Mission
    Institutional mission statement (4)
    Unit mission statement (4)
  Practices Pertaining to Objectives
    Institutional objectives (3)
    Unit objectives (3)

An itemized list of these practices in not included in the dissertation. The complete wording of 26 practices which were selected for the findings report is given in Tables 6 and 10, in Chapter IV.

Instructions: Notes for opening remarks were prepared so that the process of initiating the interviews could be standardized. The remarks included identification of the interviewer; reference to an introductory letter sent earlier; acknowledgement of the interviewee´s busy schedule; definition of "adult student"; and an explanation of the two-response format.

Exercise Using the As-Published Guide

For the supplementary exercise mentioned at the beginning of Chapter VI, two-hour meetings were held, separately, with one staff member each from the Division of Continuing Education and University Without Walls. The staff members were given copies of the *Guide* two weeks prior to the meetings. The researcher identified her purpose--to get a sense of the *Guide*´s effectiveness as designed--and asked how the sessions could be productive for the interviewees. Each chose to respond to all applicable questions rapidly, commenting on particular practices or the wording of questions. Interviewees chose to set aside performance rating exercises as too time-consuming for a two-hour session. Initial attempts at choosing a "state of consideration" for descriptor statements proved cumbersome. Instead, the two interviewees highlighted practices they wished to place on their units´ agendas for new or renewed discussion. The researcher later provided, in memo format, a list of the practices each had targeted, along with *Guide* page references.

APPENDIX B

Cover Letters

Sample Cover Letter to Unit Heads

UNIVERSITY OF MASSACHUSETTS
AT AMHERST

Hills House
Amherst, MA 01003
(413) 545-2155

Division of Educational Policy
Research and Administration

April 14, 1987

Professor ————

University of Massachusetts
Amherst, MA 01003

Dear Professor ————

I am writing to request your help with a study of how this University is responding, or might respond, to older undergraduate students. As head of a department, your perceptions are particularly important to me.

Will you please take time to complete the enclosed survey form? I realize you are busy, so I designed it to take as little time as possible. Most of the pilot readers, including some former department chairs, completed it in less than 25 minutes.

The adult student population is a small proportion of the UMass/Amherst campus community. Currently, 1,465 degree-seeking undergraduates 25 years of age or older are enrolled, 167 of them as majors in the College of Food and Natural Resources. However, it is timely for this campus to examine how its policies and practices affect this age group, because some predictions indicate that in the next five years, the adult proportion among undergraduates nationally will increase significantly.

Your responses are very important because only a small percentage of University personnel has been asked to reply to this survey. In addition to department chairs and heads, I am seeking perceptions of faculty, academic advisors, directors of programs with primarily adult clientele, heads of support services, and adult students. My study extends work sponsored by the American Council on Education's Commission on Higher Education and the Adult Learner.

For your convenience, I have provided an envelope for returning the survey form by campus mail. Under no circumstances will individual responses be revealed; only group data are meaningful to this study. The identifying number stamped on the survey form is for followup and research purposes only.

If you need additional information or clarification, please call me at my home, 549-7363. If you would like to receive summary data from the study, I will gladly supply them; just let me know in a brief note or by phone. Thank you for taking time out of your busy schedule to provide the requested information and any supplementary comments you choose to add.

Sincerely,

Annette Greenland

Annette Greenland, Doctoral Student
Adult and Higher Education

The University of Massachusetts is an Affirmative Action/Equal Opportunity Institution

Sample Letter of Introduction to Support-Unit Heads

UNIVERSITY OF MASSACHUSETTS
AT AMHERST

Hills House
Amherst, MA 01003
(413) 545-2155

Division of Educational Policy,
Research and Administration

May 29, 1987

Mr. Timm Rinehart, Director
Undergraduate Admissions
255 Whitmore
University of Massachusetts
Amherst, MA 01003

Dear Mr. Rinehart:

I am writing to request your help with a study of this University's responsiveness to older undergraduate students. In a few days I will be contacting you by telephone in order to ask a few questions about support services under your jurisdiction. As head of undergraduate admissions, your perceptions are particularly important to me. I know you are very busy, so I have designed the interview format to take as little time as possible.

My study involves a survey which seeks to determine the use throughout the University of selected practices which research has found to be effective frequently for serving undergraduates who are 25 years of age or older. The survey also seeks to determine how receptive the University is to maintaining or adopting those selected practices. No value judgment of other practices, such as those especially suitable for traditional-age (18-22) students, will be implied or made.

In addition to interviewing heads of support units by telephone, I am seeking via mailed survey forms the perceptions of department and division heads, faculty, academic advisors, directors of programs with primarily adult clientele, and adult students. My study extends work sponsored by the American Council on Education's Commission on Higher Education and the Adult Learner.

The adult student population is a small proportion of the UMass/Amherst campus community. This semester 1,472 degree-seeking undergraduates 25 years or age or older were enrolled. However, it is timely for this campus to examine how its policies and practices affect this age group, because some predictions indicate that in the next five years the adult proportion among undergraduates nationally will increase significantly.

I am looking forward to talking with you. If you wish to contact me before I telephone you, please call me at my home, 549-7363. An answering machine is in place when I'm away from the telephone.

Sincerely,

Annette Greenland

Annette Greenland, Doctoral Student
Adult and Higher Education

The University of Massachusetts is an Affirmative Action/Equal Opportunity Institution

Letter of Endorsement

UNIVERSITY OF MASSACHUSETTS
AT AMHERST

Whitmore Administration Building
Amherst, MA 01003
(413) 545-2464

Office of the Executive Vice Chancellor
and Provost

April 1987

Dear Colleague:

With this letter, you are receiving a request to participate in a telephone survey conducted by Annette Greenland, a doctoral student in the School of Education. Ms. Greenland's dissertation research focuses on policies, practices, and opinions about "older" undergraduate students attending the Amherst campus of the University.

I encourage you to take time to participate in this research project because it promises to be of value to the faculty and administration who are working to improve our approach to nontraditional students. Over the past several years, the Faculty Senate, the administration in both Academic Affairs and Student Affairs, and the Campus Planning Council have all focused in one way or another on students who do not fit the typical undergraduate profile. By participating in Ms. Greenland's study, you will add an important dimension to the work that has already been done.

Cordially,

Fern Johnson

Fern L. Johnson
Deputy Provost and
Professor of Communication

FLJ/ud

The University of Massachusetts is an Affirmative Action/Equal Opportunity Institution

Sample Cover Letter to Students

UNIVERSITY OF MASSACHUSETTS
AT AMHERST

Hills House
Amherst, MA 01003
(413) 545 2155

Division of Educational Policy
Research and Administration

April 16, 1987

Amherst, MA 01003

Dear ________

I have undertaken a study to determine how the University of Massachusetts at Amherst serves undergraduates who are 25 years of age or older. The University is cooperating with this effort in order to learn how to improve policies and practices that serve this adult population.

Will you please spend a few minutes filling out the enclosed survey form? I know that you are very busy, but your opinions are very important. I am asking only one out of every nine UMass undergraduates who are 25 or older to respond to this survey.

The form is a standardized one, so it asks for some kinds of background information which are not relevant to my study. I have marked an "X" through the items I don't need, to save you some time. You'll find a slip of paper folded inside the form; on it there is a special question for the "comments and suggestions" space on the back page.

A number stamped on the form is for follow-up and research purposes only. Under no circumstances will individual names or opinions be revealed. Only group data are meaningful to this study. (I am also seeking opinions from other groups -- faculty, advisors, and heads of services such as the financial aid office and the library. All of this information, when I put it together and analyze it, will be the subject of my doctoral dissertation.)

For your convenience, a stamped envelope is provided so that you may return the form without folding it. I would very much appreciate your completing the form within a week (before the hectic end of the semester comes any closer). If you have any questions, please call me at my home number, 413-549-7363.

A UMass decal is enclosed as a small token of appreciation. Thank you for taking time out of your busy schedule to express your opinion about the University's services and practices.

Sincerely,

Annette Greenland

Annette Greenland, Doctoral Student
Adult and Higher Education

The University of Massachusetts is an Affirmative Action/Equal Opportunity Institution

APPENDIX C

Completion-Rate Characteristics

Completion-Rate Characteristics

Quantifiable Components of Instruments

Overall, in the quantifiable components of the instruments, codable responses were provided in 96.3% of possible places by the 356 persons whose instruments contained usable data. Table 39 displays completion rates for the quantifiable portions of the various instruments in the study. "Completion" in this table is defined, for the instruments received from university personnel, as any response codable in the categories Yes, No, Rarely, Conditional Yes, or Other Comment, and for the Student Opinion Survey, as a machine-readable blackened oval.

Some qualifications apply to the table: (a) The six optional items under the heading "Student Development Approach" in the faculty instrument are not included. (b) The possible-response total for data from interviews of support-service heads takes into account that varying numbers of questions from a 196-item repertoire were asked. Some interviewees offered to send official printed materials rather than respond directly to some questions. However, the 617 possible responses listed in the table are only those which could later be coded, as found in interview notes, by means of the numerical scheme devised for unit-head, faculty, and advisor responses; information retrievable from brochures and other materials received following interviews was neither added to the oral responses nor counted as part of item completion. (c) The completion rate of the DCE unit head is comparatively low because she did not complete the unit-head-instrument portion of the survey; however, she provided responses for 98% of the 158 support-service items (a total of 316 possible responses) which comprised the rest of the survey packet sent to her. (d) In Section II of the Student Opinion Survey, "College Services," a blank is tallied in Part A if the student does not indicate whether he/she has used the service; a blank is tallied in Part B, the "satisfaction" response, only if a student who has used the service does not blacken an oval on the satisfaction scale. The "possible responses" total in Table 39 reflects this discrimination process. (e) Four students who did not complete the quantifiable sections of the SOS account for much of the incomplete student response; if the four are excluded, the completion rate for the remaining 141 student respondents is 99.0%.

Non-Quantifiable Components of Instruments

Overall, more than 76% of unit heads, faculty, advisors, and students wrote responses to open-ended questions, proportionately more advisors and students than unit heads and faculty.

In tallies of responses by university personnel to non-quantifiable components of instruments, such entries as question marks and single words were counted as responses, while lone dashes or dots were not. Comparisons of the characteristics of commenting with non-commenting unit heads, faculty, and advisors were not made.

Representation in written comments according to the university major of adult students is somewhat uneven, but did not seem to affect conclusions drawn from content analysis of the written material. All four respondents who are BGS Majors (100%) supplied responses to the open-ended question, compared to 85.3% of Other Majors and 75.3% of UWW Majors. Representation according to student gender and full-/part-time status is approximately equivalent to the proportions of those characteristics in the respondent group: 82% of full-time-student respondents and 79% of part-time student respondents wrote comments; 78% of male and 82% of female student respondents wrote comments. Of the four students who returned instruments but did not complete the usage and satisfaction components, two (one UWW Major and one Other Major) provided written responses to the open-ended question.

Table 39
Completion Rates of Quantifiable Components
of Survey Instruments

Respondent Group	N	Possible Responses	Number and Percent Completed*	
Unit heads	48	4,512	4,349	96.4%
Faculty	91	6,461**	6,181	95.6
Advisors	49	3,430	3,367	98.2
Support-service heads	23	617	604	97.9
Adult-unit heads:				
DCE	1	410	310	75.6
UWW	1	388	387	99.7
Students	145	10,493	10,131	96.6
	---	------	------	----
Totals	358	26,311	25,329	96.3

---

*"Completion" is here defined, for university personnel instruments, as a response codable as Yes, No, Rarely, Conditional Yes, or Other Comment; for students, as a blackened oval, one per item, readable by the instrument publisher´s scoring equipment.

**Optional items (Student Development Approach section) not included

APPENDIX D

Supplementary Tables

Table 40
Data Used in Correlation Calculations

School-College-Faculty Unit	Spring 1987 Enrollment Total	Spring 1987 Enrollment Percent 25 and older	Unit Head Proponence	Unit Head Usage	Faculty Proponence	Faculty Usage*	Advisor Proponence	Advisor Usage
CAS	3,834	3.7	--	--	--	--	85.7	58.1
HFA	2,278	9.5	54.2	31.4	62.5	28.7	67.4	51.6
NSM	1,304	8.9	58.7	36.2	71.4	28.0	52.8	45.7
SBS	2,848	5.3	47.2	27.7	75.8	38.9	52.8	14.3
EDU**	697	12.3	93.6	49.6	82.4	52.0	88.6	72.8
ENG	1,918	10.1	51.1	36.2	70.2	30.7	80.0	65.7
FNR	2,434	6.9	64.8	29.1	74.6	30.5	78.1	61.0
HSC	362	19.6	80.1	45.4	81.6	55.9	80.0	41.4
MGT	2,068	2.2	53.2	28.7	58.8	36.0	***	***
PHE	569	4.4	49.6	24.8	***	***	***	***
	------	----						
	18,659	7.0						

*Faculty total usage scores are those which correspond to faculty proponence scores; usage scores for Sections VI and VII, which contain no proponence questions, are not included here

**University Without Walls enrollment is not included in the EDU figure used in these comparisons

***These figures represent one respondent each, and thus are not displayed here for confidentiality reasons; they were, however, used in the correlation calculations

Table 41
Summary of Student Groups with Significantly Differing Mean Satisfaction Scores for Key Services and Environmental Aspects (n=141)

	Degree classification UWW/BGS/OTH*	Age Group 25-29/30-39/ 40 & over	Racial Group WH/NON-WH/PNR*	Gender M/F	Enrollment Status Part-time/ Full-time	National Norm Group/ Local Group
5 (of 10) Key College Services						
Academic advising services	UWW > OTH	**			PT > FT	
Career planning services					PT > FT	
Financial aid services			WH > NON-WH			
Student employment services			WH > NON-WH			
College orientation program					PT > FT	
14 (of 20) Key Aspects of College Environment						
Course content in major field	**					
Attitude of faculty toward students	UWW > OTH	40+ > 25-29 30-39 > 25-29		F > M	PT > FT	NAT > LOC
Flexibility to design program of study	UWW > OTH	40+ > 25-29 30-39 > 25-29		F > M	PT > FT	LOC > NAT
Availability of advisor	UWW > OTH	40+ > 25-29 30-39 > 25-29		F > M	PT > FT	LOC > NAT
Value of advisor information	UWW > OTH	40+ > 25-29		F > M	PT > FT	
College catalog/admissions publications						NAT > LOC

(continued)

Table 41, continued

	Degree classification	Age Group	Racial Group	Gender	Enrollment Status	National Norm Group/ Local Group
	UWW/BGS/OTH*	25-29/30-39/ 40 & over	WH/NON-WH/PNR*	M/F	Part-time/ Full-time	
Availability of desired courses at suitable times	OTH > UWW					NAT > LOC
Concern for student as individual	UWW > OTH				PT > FT	NAT > LOC
Non-teaching staff's attitude toward students			WH > NON-WH			NAT > LOC
Racial harmony at this college	OTH > UWW					NAT > LOC
Opportunities for student employment		25-29 > 30-39				
Student government						NAT > LOC
Campus media		40+ > 25-29 30-39 > 25-29				LOC > NAT
This college in general		40+ > 25-29 40+ > 30-39	WH > NON-WH PNR > NON-WH			

*UWW, University Without Walls majors; BGS, Bachelor of General Studies majors (Division of Continuing Education); OTH, majors in other school, college, and faculty organizational units; WH, Caucasian/white; NON-WH, all other racial categories; PNR, "prefer not to respond." The ">" indicates left subgroup's mean satisfaction score is greater than right member's.
**Significant intragroup differences, but relationship of subgroups not specified by a posteriori contrasts.

CLIMATE SCORES FOR PRACTICES IN THREE SURVEY INSTRUMENTS

Score is calculated from number of persons answering in dual-response format (see Chapter IV, pp. 227-229). For example, YY signifies that respondent answered "Yes" to "Are you a proponent of this practice?" and "Yes" to "Is this your department´s practice?" Number in "Msg" (missing) column signifies persons who gave partial or ambiguous answers or left the item blank.

$$\text{Climate Score} = 4\ (\text{No. YYs}) + 3\ (\text{No. YNs}) + 2\ (\text{No. NYs}) + 1\ (\text{No. NNs}) + 0\ (\text{Msg})$$

Practices at top of list are in "warm" climate for maintenance or adoption, practices at bottom of list in "cool" climate.

NOTE: Climate scores are not standardized across the three instruments, so can be compared only by order in rank, not by numerical value. Some practices are in greatly abbreviated form below and in the two following lists. See Tables 3-5 (pp. 110-118) or Tables 7-9 (pp. 125-134) for more complete wording.

Table 42
Climate Scores: Practices in Instrument Sent to Unit Heads (n=48)

	YY	YN	NY	NN	Msg	Climate Score
Making academic advising avail in dept	47	1				191
Accepting other colls´ day credit as equal	46				2	184
Monitoring student progress in dept	37	10			1	178
Design´g dept brochures to show structure	36	11			1	177
Making Honors, other accel avail in dept	36	8		3	1	171
Maint good referral network w/oth advsg	34	11		1	2	170
Offering courses through Div Cont Ed	38	3	2	3	2	168
Holding fac discsn about stu completion	25	19		4		161
One standard deviation above the mean						
Accepting Div Cont Ed credit as equal	38			5	5	157
Accepting other cont ed credit as equal	36		2	6	4	154
Maint good referral network w/remed progs	20	23		4	1	153
Sched some courses longer,less freq mtgs	28	10	2	6	2	152
Offering trad courses via indep study	30	7		10	1	151
Having ready avail info on retention rates	15	29		2	2	149
Scheduling some sections evenings/weekends	23	15	1	7	2	146
Collecting reasons stu drop out of dept	12	30		2	4	140
Allow´g stu to devel individ´z´d courses	19	17		10	2	137
Making some effort to attract adult stu	13	24		8	3	132
Awarding credit via special dept exams	21	11		14	2	131
Addressing stu learn styles in fac discsn	13	23		9	3	130

(continued)

Table 42, continued

	YY	YN	NY	NN	Msg	Climate Score
Design´g dept brochures show age diversity	9	27		8	4	125
Maint peer assistance prog in dept	6	29		10	3	121
Mean (114)						
Offering trad courses off-campus	10	19	1	13	5	112
Offering remed courses/progs in dept	9	18	1	20		112
Offering trad courses in media-deliv format	5	26		12	5	110
Making prog completn poss after 4 pm/wknds	13	14		14	7	108
Offering help to stu in portfolio devel	10	16		18	4	106
Making advising avail evenings/weekends	11	15		17	5	106
Spons/partic in staff wksp re adult needs		27		18	3	99
Award credit other ways for non-col lrng	9	11	2	21	5	94
Making p-t stu prog compltn poss in 10 sem	10	14		10	14	92
Applying credit from CLEP exams	12	6		21	9	87
Making remed progs avail evenings/weekends	5	16		19	7	87
Making advising avail off campus	8	9		27	4	86
Making remed progs avail in media format	5	16		18	9	86
Applying credit from CEEB/AP exams	11	7		19	11	84
Recog fac work w/adult stu via reward syst	2	15		28	3	81
One standard deviation below the mean						
Offering entire program off campus	5	6	1	32	4	72
Making remed progs avail off campus	1	12		26	9	66
Offering entire program in media-deliv form	3	6		34	5	64
Applying credit from PEP exams	6	5		22	17	61
Offering trad courses via corresp study		4		40	4	52
Offering entire prog via corresp study		2		45	1	51
Offering entire prog via indep study	1	1		44	2	51
Applying credit via NY Regents´ exams		7		24	17	45
Applying credit via ACE milit equiv guide		6		24	18	42
Applying credit via ACE train´g equiv guide		6		24	18	42

Table 43
Climate Scores: Practices in Instrument Sent to Faculty (n=91)

	YY	YN	NY	NN	Msg	Climate Score*
Supervising indep study course	72	11		4	4	325
Advsg about course subs, flex in curric	66	13		9	3	312
Varying deliv mode in class re lrng prefs	64	11		10	6	299
Teaching interdisciplinary courses	42	41		6	2	297
Varying role in classroom dep stu needs	61	11	1	12	6	291
Teaching course with indiv lrng contracts	51	24		14	2	290
Teach´g course w/experiential lrng compnt	49	27	1	11	3	290
Varying structure in class dep stu needs	59	13		15	4	290
One standard deviation above the mean						
Giving pos consid to adult stu experience	63	7	1	9	1	284
Helping adult stu plan indiv´z´d majors	43	34		8	6	282
Teaching evening/weekend courses	32	44		12	3	272
Serving as UWW sponsor/evaluator	33	39	1	14	4	265
Teaching self/unit-init´d course via DCE	22	55		9	5	262
Being avail for advsg appts after hours	43	17	3	20	8	249
Mean (242)						
Teaching response course via DCE	8	65		13	5	240
Working w/adult stu in govt´l agencies	22	45		16	8	239
Partic in nat/reg conf re how stu learn	17	46	1	24	3	232
Working w/adult stu in business/industry	22	41		20	8	231
Partic in loc wksp re stu needs, assessmt	18	45		23	5	230
Working w/adult stu in human serv agencies	15	50		18	8	228
Giving pos consid to adult stu age	45	5	3	26	12	227
Design´g course to build on stu life exp	33	20		30	8	222
Partic in nat/reg conf re adult col stu	7	55	1	24	4	219
Teaching course at off-campus location	14	43		26	8	211
Teaching other competency-based course	23	32		22	14	210
Helping stu devel portfolio for cred demo	20	33	1	28	9	209
Undertaking spec rdg about adult col stu	11	44		29	7	209
Partic in nat/reg conf re stu assessment	14	41	1	27	8	208
Working w/adult stu in oth colls´ cont ed	8	51		23	9	208
One standard deviation below the mean						
Leading nat/reg/loc efforts re adult stu	7	46		32	6	198
Teaching, etc., adult stu in "other" orgs	16	37		22	16	197
Advising students at off-campus locations	19	28	2	32	10	196
Undertaking research/service re adult stu	11	41		25	14	192
Teaching a course via corresp study		17	1	65	8	118

*Climate scores obtained for one instrument are not standardized with those for the other two instruments in the set.

NOTE: Three "recognition" and six "student development approach" items for which only one response was requested are not included in this list.

Table 44
Climate Scores: Practices in Instrument Sent to Advisors (n=49)

	YY	YN	NY	NN	Msg	Climate Score*
Provid´g info re pers/career couns sources	48	1				195
Provid´g info re oth advsg sources	48		1			194
Collecting demographic data re advisees	44	5				191
Collecting stu descriptive data	44	3		1	1	186
Collecting data on prev learning exper	43	4		1	1	185
One standard deviation above the mean						
Collecting stu progress data	42	4		2		182
**Advsg stu about flex in curriculum	44	1		2	1	181
Advsg stu about credit via indep study	42	2	2	2		180
Advsg stu about credit via interdis course	42	4			2	180
**Helping stu plan individ´z´d majors	43	1		4		179
Advsg stu about credit via DCE courses	42	1		4	1	175
Design´g advsg prog to consid nds of all	38	6		4		174
Advsg stu about credit via exper lrng crs	40	2		6		172
Advsg stu about credit via spec dept exams	33	9		6		165
Advsg stu about credit via CLEP exams	33	7	1	6	1	161
Advsg stu about credit via UWW courses	33	7		6		159
Advsg stu about credit via CEEB/AP exams	28	13		5	2	156
Advsg stu about credit via off-campus prg	34	4		6	4	154
Collecting stu academic needs data	33	4		10	1	154
Mean (143)						
**Partic in wksp re adult learning/-ers	7	30		9	2	131
**Undertaking special reading re adult stu	12	22	1	10	4	126
Having persons in unit w/spec trng/rdg	13	18		16	1	122
**Taking lead role in oth advsrs´ lrng	10	22		15	1	121
Collecting stu personal needs data	18	10		17	4	119
Making part of advsg prog avail eve/wknds	9	23	1	11	5	118
Collecting stu socioeconomic data	17	6		25	1	111
One standard deviation below the mean						
Advsg stu about courses in media formats	7	17		21	3	100
Using computer-assisted advsg for adults	3	22		15	8	93
Advsg stu about credit via corresp study	12	6		27	3	93
Making some advising avail off campus	7	12	1	24	4	90
Advsg stu about equiv credit for milit	10	10	2	16	10	90
Collecting other situational data	11	6		26	5	88
Advsg stu about equiv credit for training	8	12	2	14	13	86
Advsg stu about NY Regents´ exam credit	5	15	2	15	12	84
Advsg stu about credit via PEP exams	14	14		12	9	68

*Climate scores obtained for one instrument are not standardized with those for the other two instruments in the set.

**Individual-advisor practices; the others are advising-unit practices.

APPENDIX E

Content Analysis Procedures

CATEGORIZATION AND CODING SCHEMES FOR RESPONSES TO OPEN-ENDED QUESTIONS (UNIT HEADS, FACULTY, ADVISORS)

Responses of unit heads, faculty, and advisors to open-ended questions were content-analyzed. The initial sort of responses consisted of typing them onto index cards in six subsets according to their location on the instrument: "university mission," "department mission," and "other comment" (unit heads, faculty); "purpose," "change," and "other comment" (advisors). The resulting set of 338 cards comprised 80 unit-head responses, 158 faculty responses, and 100 advisor responses. Sixteen responses whose content clearly indicated that they belonged in one of the other locations were reclassified. The numbers of respondents listed in Tables 36-39 in Chapter IV reflect the reclassification. A card-numbering system provided an addisafeguard of confidentiality (beyond the instrument-numbering system).

Categories were developed from the responses in each of the subsets. A four-digit code was established for each subset, the first digit representing the general tone (positive, neutral, negative) of the response and remaining digits representing categories of specific content.

Measures of inter-coder reliability were sought for the categorization schemes. Another doctoral student ("second coder") was instructed in the method used to derive the schemes; approximately 10% of the cards from each set were used as training sets. Some definitions were clarified through discussion. The second coder then coded approximately 25% of each subset. Disagreements were discussed and a few further modifications made in definitions. For those schemes in which modifications were made, the second coder coded from 25% to all of the remaining responses. Inter-coder reliability statistics were obtained before and after final modifications by using Scott´s Pi (Scott, 1955).

One measure of inter-coder reliability (.53) is low by conventional standards and thus bears explanation. In the "department mission" categorization scheme (attached), among the subcategories of reasons that the university´s mission includes service to adults, is a definition giving type of institution (state, land-grant, university) as a reason. The principal coder held to a conservative inference, requiring the word "because" or a clear sense of it in the response before placing it in this subcategory. The second coder felt that just the occurrence of the word "university" in the response justified placing it in the subcategory. The difference in breadth of inference was not resolved, hence the low reliability figure.

The six categorization schemes are attached. Judgments were made in order from left to right. Final inter-coder reliability statistics have been added at the bottoms of the columns.

When content analysis findings were prepared for reporting in Chapter IV, the subcategories in columns 2, 3, and 4 which represented fewer than 10% of the respondent group were collapsed into "miscellaneous other" subcategories.

CODING SCHEME - STATEMENTS ABOUT UNIVERSITY MISSION

Department/division chairs/heads, faculty

Survey question: "As spokesperson for your department, how do you interpret this University's mission as it relates, either explicitly or implicitly, to the development or delivery of programs and services to adult students?"

Column 1: Overall tone of comment	Column 2: REASONS (UMass's mission includes service to adults because...)	Column 3: EMPHASES, MANIFESTATIONS (mission includes service to adults, in this manifestation or with this emphasis)	Column 4: CONSTRAINTS, CONDITIONS (UMass's mission includes adults but within constraints)
1 - generally positive, i.e., mission includes service to adults	1 ... of the kind of institution it is (university, public, state, land-grant)	1 - certain kinds of programs, training, approaches	1 - if adults meet criteria (e.g., are qualified/motivated, come to campus)
2 - neutral comments; doesn't know; too little information to classify as pos. or neg. concerning service to adults	2 ... age isn't the discriminating factor determining clientele (i.e., all students should have same treatment, opporunity)	2 - need for flexibility/adaptation towards individuals (rules, access, methods)	2 - if or as demographics or demand dictate
3 - generally negative, ie., sees no UMass mission to serve adults		3 - support (general support or specific support services)	3 - Resource constraints determine extent of service
		4 - Improvement or extra effort needed to meet this mission	4 - Traditional functions, quality, standards must be maintained (parallel concept)
		5 - This mission is increasing in importance	5 - Demands of profession or discipline are higher priority (hierarchy concept)
0 - blank	0 - (no reason given)	0 - no special emphasis mentioned	0 - no constraint or condition given
	9 - more than 1 reason given	9 - more than 1 category of emphasis mentioned	9 - more than 1 category of constraint or condition mentioned

INTERCODER RELIABILITY:

.91	.85	.78	1.0

CODING SCHEME - STATEMENTS ABOUT DEPARTMENT MISSION

Department/division chairs/heads, faculty

Survey question: "How do you interpret your department's mission as it relates, either explicitly or implicitly, to the development or delivery of programs and services to adult students?"

Column 1: Overall tone of comment	Column 2: REASONS (Dept's mission includes service to adults because...)	Column 3: EMPHASES, MANIFESTATIONS (Dept's mission includes ser- to adults, in these manifestations or with this emphasis)	Column 4: CONSTRAINTS, CONDITIONS (Dept's mission includes adults but within constraints)
1 - generally positive, i.e., dept. mission includes service to adults	1 ... of the kind of institution Umass is (university, public, state, land-grant)	1 - certain kinds of programs, training, approaches, attitudes in dept. re adults	1 - if adults meet criteria (e.g., are qualified/motivated, come to campus)
2 - neutral comment; doesn't know; too little information to classify pos. or neg.	2 ... age isn't the discriminating factor in determining clientele (i.e., all students should have same treatment)	2 - need for flexibility/adaptation towards students as individuals (rules, access, methods)	2 - if or as demographics or demand dictate
			3 - Resource constraints determine extent of service
3 - generally negative. i.e., no dept. mission to serve adults	3 ... of the kind of dept. or school it is	3 - support (general support, specific support services)	4 - Traditional functions, quality, standards must be maintained (parallel concept)
		4 - Improvement or extra effort needed to meet this mission	
		5 - This mission is increasing in importance	5 - Demands of profession or discipline remain top priority (hierarchy concept)
		6 - Adults are desirable students	6 - Effort is of indiv. faculty rather than dept. policy
			7- Service is limited primarily to graduate students
0 - blank	0 - no reason given	0 - no special emphasis mentioned	0 - no constraint or condition given
	9 - more than 1 reason given	9 - more than 1 category of emphasis mentioned	9 - more than 1 category of constraint or condition mentioned

INTERCODER RELIABILITY:

.87	.53	.95	.89

CODING SCHEME - OTHER COMMENTS

Department/division chairs/heads, faculty

Survey item: "Please use the space below, or added sheets, for any clarifying or supplementary comments concerning survey items."

Column 1: Overall tone of comment	Column 2: Personal situation	Column 3: Special characteristics of adults	Column 4: Elements of the survey
1 - generally positive regarding survey items	1 - comment about own situation, assignment; involvement with adults stated or implied	1 - mentioned positive characteristics or influence of adults	1 - positive comment about particular aspect of survey
2 - neutral or unclassifiable as pos. or neg. regarding survey items	2 - comment about own situation, assignment; involvement with adults neither stated nor implied	2 - mentioned characteristic or influence of adults -- neutral or having both pos. and neg. components	2 - neutral comment about particular aspect of survey
3 - generally negative regarding survey items		3 - mentioned problems or negative characteristic of adults	3 - negative comment about particular aspect of survey
0 - made no comment in the space	0 - made no comment about personal situation	0 - made no comment about adult characteristics	0 - did not comment on survey form or study

INTERCODER RELIABILITY:

1.0	.91	.84	1.0

CODING SCHEME - RESPONSES TO QUESTION ABOUT PURPOSE OF ADVISING UNIT
Academic advisors

Survey question: "How do you interpret the purpose of your advising unit as it relates to age diversity among undergraduates?"

Column 1: Overall tone of comment	Column 2: APPROACH or STANCE of unit (philosophy, policy)	Column 3: SPECIAL ASPECTS, DUTIES OF UNIT ("evidence")	Column 4: CONSTRAINTS, CONDITIONS related to unit practice
1 - generally positive concerning attention to age diversity	1 - help all students, students in general ("group" concept)	1 - promote/manage programs especially suited to adult students	1 - Resource constraints must be considered
	2 - treat every student as individual case ("individual" concept)	2 - use approaches especially suited to adult students	
2 - unclassifiable as positive or negative conconcerning attention to age diversity; neutral; don´t know	3 - unit has explicitly stated sensitivity to adult students	3 - one or more staff has special training re adult students	2 - Requirements, standards must be observed
			3 - Few or no adults seek unit´s services
3 - generally negative concerning attention to age diversity			
0 - blank	0 - did not comment on unit´s approach	0 - named no special aspects of unit	0 - named no constraints or conditions
		9 - named more than one special aspect of unit	9 - named more than one constraint or condition

INTERCODER RELIABILITY:

.82	.70	.77	1.0

CODING SCHEME - RESPONSES TO QUESTION ABOUT CHANGES IN ADVISING UNITS
Academic advisors

Survey question: "If you were to change your unit´s advising program to make it more responsive to the needs of adult undergraduate students, what ONE ASPECT would you change first?"

Column 1: Overall tone of suggested change(s)	Column 2: TYPE OF CHANGE (use this col- for 1st type of change listed)	Column 3: TYPE OF CHANGE (use this column if more than one type of change is listed)	Column 4: CONSTRAINTS, CONDITIONS in considering change
1 - generally a positive change (i.e., toward more responsiveness to needs of adult u.g.´s)	1 - staff changes: more staff, more training for existing staff		1 - Resource constraints must be considered
	2 - expanded hours		
2 - unclassifiable as positive or negative regarding responsiveness to needs of adult u.g.´s; neutral; don´t know; N/A	3 - special programs/services/ procedures suited to adult students		2 - Requirements, standards must be observed
3 - generally negative (i.e., not tending toward more responsiveness to needs of adult u.g.´s)	4 - more or better publicity or information		3 - Few or no adults seek unit´s services
0 - blank	0 - comment does not include suggestion for change	0 - no 2nd change listed	0 - no constraint or condition mentioned
		9 - more than 2 categories of change are listed	9 - more than one constraint or condition mentioned

INTERCODER RELIABILITY:

1.0	1.0	.91	1.0

CODING SCHEME - OTHER COMMENTS
Academic Advisors

Survey stimulus: "Please use the space below for any clarifying or supplementary comments concerning survey items."

Column 1: Overall tone of comment	Column 2: PERSONAL SITUATION OR VIEW	Column 3: SITUATION OF LARGER UNIT (dept., university)	Column 4: CON- CONSTRAINTS, CONDITIONS
1 - generally positive concerning survey items	1 - personal situation; involvement with adults stated or implied	1 - department or univ. situation; relevance to adults stated or implied	1 - Resource constraints must be considered
2 - neutral, N/A, unclassifiable as positive or negative in context, concerning survey items	2 - personal situation; involvement with adults neither stated nor implied	2 - department or univ. situation; relevance to adults neither stated nor implied	2 - Requirements, standards must be observed 3 - Few or no adults are served by unit
3 - generally negative concerning survey items			4 - Survey has limitations or flaws
0 - Blank	0 - no comment on personal situation	0 - no comment on dept. or univ. situation	0 - no comment on constraints
			9 - more than one constraint or condition mentioned

INTERCODER RELIABILITY:

1.0	1.0	.79	1.0

CONTENT ANALYSIS PROCEDURES FOR STUDENT RESPONSES TO OPEN-ENDED QUESTION

Responses of adult undergraduates to an open-ended question inviting suggestions for changes in university attitudes, behaviors, policies, and practices were content-analyzed. Responses were photocopied in order to separate the information from the rest of the instrument; identification numbers were written on the backs of sheets as a safeguard against unconscious bias in judgments of content.

An initial attempt was made to develop categories of change entirely from the response themselves, in a procedure similar to that devised for the open-ended-question responses of unit heads, faculty, and advisors. However, the resulting student-comment categories--Academic, Academic/Administrative, and Support Services/Approaches--contained too much overlap and too many small categories. Although useful in initial sorting, the scheme was discarded.

More satisfactory was an adaptation of a "barriers to participation" model described by Cross (1981, pp. 97-108), who synthesized findings from several studies of potential participants in various kinds of adult education, notably a national survey conducted for the Commission on Non-Traditional Study (Carp, Peterson, and Roelfs, 1974). Cross concluded that

> Obstacles can be classified under three headings: situational, institutional, and dispositional barriers. *Situational barriers* are those arising from one's situation in life at a given time. [They include] [l]ack of time due to job and home responsibilities . . . , [l]lack of money . . . , [and] [l]ack of child care. . . . *Institutional barriers* consist of all those practices and procedures that exclude or discourage working adults from participating in educational activities -- inconvenient schedules or locations, full-time fees for part-time study, inappropriate courses of study. . . . *Dispositional barriers* are those related to attitudes and self-perceptions about oneself as a learner . . . . (p. 98)

Because those surveyed in the studies synthesized by Cross were *potential* participants in adult education, in contrast to those in the present study, who are *enrolled, degree-seeking* students, the first adaptation was from the "barriers" concept to an "obstacles to satisfaction" model. The second major adaptation was to shift the locus of attitudes under her third heading outside the student--that is, to attitudes of others, primarily because the open-ended question invited changes in attitudes *of this institution* toward adult students. This latter category was renamed an *attitudinal* category of suggested changes. Finally, Cross's *institutional* category was moved to the position of first content judgment and renamed an *institutional/procedural* category.

The three most commonly-cited barriers grouped by Cross under institutional and situational headings were selected as tentative preliminary subcategories in the first two content categories. Then the sorting of student responses was undertaken. Additional subcategories were developed from the responses themselves, and the scope and/or wording of predetermined subcategories somewhat modified.

Two attempts at constructing the "new" attitudinal category were necessary to develop a satisfactory set of subcategories. Depending on the emphasis in the student's remarks, suggestions for attitude changes were classified according either to the perceived source or content of the attitude. An additional subcategory was established for those suggestions which did not specify attitude source or content.

As was the case with the university personnel responses to open-ended questions, a four-digit code was established for student responses. The first digit represented the presence or absence of suggested changes and the overall tone of the context (if any) surrounding the suggestions. The second, third, and fourth digits represented subcategories under Institutional/Procedural, Situational, and Attitudinal categories, respectively. Where a response seemed applicable to more tthan one category, the dominant theme guided judgment.

The number of suggested changes in student responses ranged from none to 10. Because students were asked which two aspects they would change first, a maximum of two suggestions was recorded for each respondent. The two were either those clearly marked "1" and "2" (or "first" and "second") or the first two identifiable in the text of the response.

No outside or second coder was employed for judging student responses. Rather, two coding periods separated by a period of reflection were scheduled. The order in which responses sheets were coded was changed in the interim. About 4% of judgments made in the first period were revised in the second period.

Because all subcategories which were developed are listed in the text, a separate classification scheme is not provided here. However, some of the value-bearing words found in responses and used to guide the first ("tone") judgments are listed below.

POSITIVE: satisfied, very efficient, exceptional, personal attention, "thanks for asking," very pleased, excellent, opportunity, positive, proud, grateful, very impressed

NEGATIVE: dissatisfied, insult, lack of concern, tension, forced, restricted, mandatory, afford, resent, inconvenience, lost, neither desirable nor applicable, uncaring, rude, condescending, outrageous, impossible, aggravating, careless, atrocious, stress, difficult status, unacceptable, bias, discrimination, second-rate, afraid, "passing the buck," "royal run around"

APPENDIX F

Hindsights

Hindsights

During the course of data analysis and organization of results some limitations became apparent which were not anticipated in the planning stages of the study. While their affects are assumed not to be serious within the scope of the entire study, they are mentioned here to inform those who may use the findings which are most closely associated with the limitations, and to caution future researchers so that they might revise their study designs accordingly.

Faculty Teaching Level

The lack of ready access to current teaching levels of faculty at the time the faculty sample was selected was the impetus for requesting that information from participants via the survey instrument. Eight of 91 respondents (about 9%) reported that they were teaching graduates only, and two (about 2%) reported that they were not teaching. These two subgroups were excluded when data were statistically examined according to teaching level, but their responses are combined with those of the other respondents in the remaining aggregations, and their interpretations of mission towards adults were content-analyzed along with the rest. The effect on proponence differences is probably minimal, since few significant proponence differences among faculty subgroups were found, but the presence of graduate-level-only faculty in usage figures could have skewed the extent of responsiveness to undergraduates somewhat upward. In future studies which focus only on response to undergraduates, teaching level should be one of the criteria which determine exclusions from the sample.

Influence of Graduate-Level Usage

Related to the concern above is that some respondents, particularly unit heads, likely approached certain of the usage questions ("Is this your department´s practice?") out of a broader sense of unit activity than was requested of them. That is, despite the insertion of the word undergraduate three times in instructions for completing the instrument, there are indications in study data that the prevalence of many of the named practices at the graduate level influenced some usage responses. A clear example of this influence is the high rate of reported usage of media-delivered instructional formats by College of Engineering unit heads; closer examination of the nature of this activity reveals that the centerpiece of such formats is an off-campus master´s-degree program delivered via videotape to graduate engineers at industrial locations. A second example is in the School of Education, whose unit heads reported a high rate of offering off-campus courses and programs. Most off-campus programs in Education are delivered to graduate students, although occasionally undergraduates and non-degree students are allowed to enroll.

One way to diminish a too-broad interpretation of usage in future investigations would be to add a specification to the questions chosen for the dual response format: "Are you a proponent of using this practice with undergraduates?" and "Is this a practice used with undergraduates in your department?"

Common Areas of Practice

When proponence and usage of unit heads, faculty, and advisors were statistically compared under common topic headings such as independent study and off-campus advising, the justification for the exercise was essentially that although each group's function differs, the broad topic is a connecting theme, and thus the extent of proponence and usage for whatever is a group's appropriate activity could be compared. Differences in the amount of individual and group effort involved in those practices were not brought into the discussion. This becomes a limitation only if such a comparison becomes the major focus of a study, or if efforts are made at initiating change across the institution only on the basis of these common-topic comparisons. For example, an individual faculty member's decision to accept evening advising appointments is at a far different spot on a scale of effort and complexity than an entire department's decision to make the range of its advising available after hours.

Multiple Statistical Analyses

Repeated one-way analyses of variance were performed on study data--for example, on proponence and usage scores for individual items of practice. This choice of statistical approaches could have resulted in considerable Type I error; that is, since in all analyses there was an attempt to control Type I error at the .05 level, the multiple applications of the technique would have resulted by definition in five cases (out of every 100) where significant differences were found erroneously. It is recognized here that multivariate techniques would have avoided this multiple-testing difficulty, but with an associated cost. Specifically, multivariate techniques require that an extremely large number of parameters be estimated; the sizes of the samples required to estimate sufficiently a large number of parameters would be at least tenfold greater than the number available in the populations of interest to this study.

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